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HAZARDOUS WASTE INVENTORY AND DISPOSAL ASSESSMENT FOR THE SPACE SHUTTLE PROJECT

VOLUME I. INVENTORY

FINAL REPORT

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SCS ENGINEERS
4014 LONG BEACH BOULEVARD
LONG BEACH, CALIFORNIA 90807

MARCH 1981

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PREPARED FOR

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PREFACE

This report was prepared by SCS Consulting Engineers, Inc., Long Beach, California 90807. This Hazardous Waste inventory and Disposal Assessment was initiated by the Air Force to meet the requirements of the Resource Conservation and Recovery act of 1976 as amended in 40 CFR 261 & 264 May 19, 1980, and the California Administrative Code, title 22 Division 4. The report will be used as a reference document to the 1978 Space Shuttle Supplement 1. It will also be used for hazardous waste reporting to EPA/California, for hazardous waste management planning, and for engineering design concepts for the STS.

The report is in three volumes. Volume I is an inventory of hazardous wastes likely to be generated by the West Coast STS project. Volume II is an analysis of recycle, treatment, and disposal options for managing the projected STS Wastes. Volume III is an appendix with reference material for Volume II.

This work was accomplished between September 1980 and June 1981. Mr. John R. Edwards, Headquarters Space Division was the Project Officer.

This report has been reviewed by the office of Public Affairs (PA) and is releasable to the National Technical Information Service (NTIS). At the NTIS it will be available to the general public, including foreign nations.

This report has been reviewed and is approved for publication.

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The Space Shuttle Program (STS) at Vandenberg Air Force Base is expected to generate a variety of hazardous wastes during its years of operation, from 1985 through 199[illegible] The purpose of this study was to compile a projected inventory of the types and quantities of hazardous waste likely to be generated by shuttle-related ground operations. This inventory will be used to assess waste management options, to complete EPA hazardous waste forms, and for preparing the supplement to the Environmental Impact Statement.

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The inventory lists waste types; chemical constituents; baseline and contingency mass and volume per launch, for each year of the project, and per month for each year; EPA and California hazardous waste numbers and hazardous properties; and California compatibility class.

Total baseline waste generation for the STS project is anticipated to be 130 million kg. The greatest quantities of wastes are expected to be generated by Station Sets V23 and V32 (72 million kg and 54 million kg, respectively). Estimated total project waste generated under contingency conditions is 1.4 million kg. The only station sets identified as potential generators of contingency wastes are V19, V21, and V23. Station Set V23 is expected to generate approximately 84 percent by weight of all contingency wastes.

99.6 percent by weight of all hazardous waste will be in liquid form, principally originating from flame bucket quenching (55.9 percent) and SRB washing and rinsing (41.9 percent). The remaining 0.4 percent by weight of all hazardous waste is expected to be in solid state. Most solid waste will be generated by Station Sets V31 and V32.

Further breakdown of wastes into hazardous and acutely hazardous categories reveales that only 1.8 percent by weight of total hazardous waste is expected to exhibit acutely hazardous properties. Primary generators of acutely hazardous waste will be Station Sets V19, V23, V21, and V17.

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SECTION 1

EXECUTIVE SUMMARY

1. INTRODUCTION

The space shuttle program at Vandenberg Air Force Base is expected to generate a variety of hazardous wastes during its years of operation, from 1985 to 1994. The purpose of this report is to present an inventory of the expected types and quantities of waste to be generated by shuttle-related ground operations. The inventory provides estimates for:

- Types of wastes generated.
- Chemical constituents in each waste stream.
- Mass and/or volume of waste generated during scheduled ground operations (per launch cycle, per month per year, and project total).
- Mass and/or volume of waste generated under contingency conditions (per contingency event, per year, and project total).
- EPA and California hazardous waste numbers for each waste.
- EPA and California hazardous properties for each waste.
- California compatibility class for each waste.

The inventory will be used to assess waste management options (Volume II of this report), to complete EPA hazardous waste forms, and for preparing the supplement to the Environmental Impact Statement required for the Space Transportation System (STS) project.

2. HAZARDOUS WASTE REGULATIONS FOR GENERATORS

The U.S. Environmental Protection Agency (EPA) has developed a nationwide program to regulate hazardous wastes from generation to final disposal, through directives in the Resource Conservation and Recovery Act (RCRA) of 1976 (PL94-580). Under RCRA rules, Vandenberg Air Force Base (VAFB) is considered a generator of hazardous waste, and depending on its final waste management

plan, may also be considered as a storage, treatment, and/or disposal facility.

Regulations for generation of hazardous wastes are discussed in Volume I of this report. The primary responsibilities of the generator include:

- Identifying all hazardous wastes generated by the base and its tenants.
- Notifying EPA of hazardous activities within 90 days from the time that waste-generating activities commence.
- Obtaining an EPA generator's identification number.
- Preparing a hazardous waste manifest (in California, the California Hazardous Waste Manifest must be used).
- Properly containerizing and labeling waste and placarding transport vehicles.
- Reporting to California Department of Health Services:
  - Monthly (copies of manifests from the previous month)
  - Annually (submittal of completed EPA Annual Report Forms 8700-13 and 8700-13a).

Other requirements for generators include obtaining special permits for each shipment of extremely or acutely hazardous waste; and obtaining a permit if waste is to be stored by the generator for more than 60 days.

It is anticipated that by April 1981, California will receive interim authorization to administer its own hazardous waste program. At that time, the generator will be subject to all rules under California Administrative Code, Title 22. Until California receives final authorization, the generator must also comply with federal regulations authorized under RCRA.

3. SOURCES OF WASTE

A summary of the hazardous wastes generated over the duration of the STS project at VAFB is given in Tables 1, 2, and 3, monthly, yearly, and total project quantities, respectively, are reported for normal operations and contingency conditions.

TABLE 1. SUMMARY OF BASELINE MONTHLY HAZARDOUS WASTE GENERATION, 1985 - 1994

Monthly for 1985		Monthly for 1986		Monthly for 1987		Monthly for 1988-1994	
Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds
346,656.8	764,251.5	519,985.3	1,146,377.5	866,642.5	1,910,629.8	1,299,963.8	2,865,944.5

TABLE 2. SUMMARY OF BASELINE YEARLY HAZARDOUS WASTE GENERATION, 1985-1994

1985		1986		1987		Yearly for 1988-1994		Project Total	
Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds
4,159,882.0	9,171,018.0	6,239,824.0	13,756,530.0	10,399,710.0	22,927,556.0	15,599,566.0	34,391,336.0	129,996,350.0	286,594,308.0

TABLE 3. SUMMARY OF CONTINGENCY HAZARDOUS WASTE GENERATION, 1985-1994

1985		1986		1987		Yearly for 1988-1994		Project Total	
Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds
121,367.7	267,571.5	124,633.5	274,771.5	131,165.2	289,171.5	139,329.8	307,171.5	1,352,475.0	2,981,715.0

As shown in Table 2, total baseline waste generation for the STS project is anticipated to be 130 million kg (287 million lbs). Annual waste generation is estimated to range from 4.2 million kg/yr (9.2 million lbs/yr) for 1985, to 15.6 million kg/yr (34.5 million lbs/yr) for each of the years 1988 through 1994. This increase reflects changes in the number of launches per year from 4 to 15. Baseline waste generation for each year of the project is graphically represented in Figure 1.

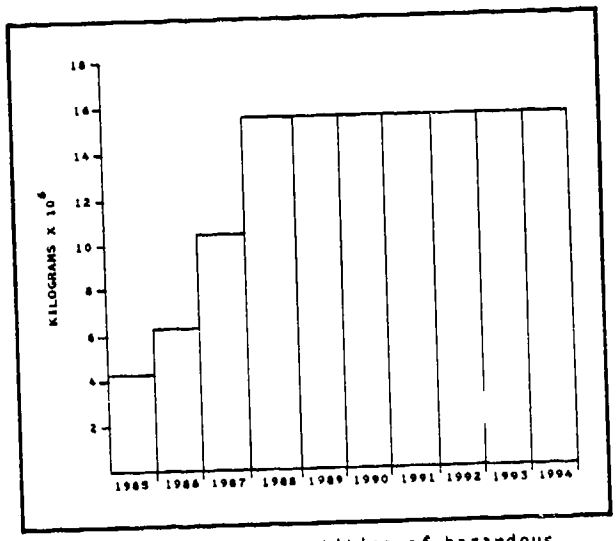

Figure 1. Baseline quantities of hazardous waste generated by STS ground operations at VAFB (reported for each year for the period 1985 through 1994).

The greatest quantities of wastes are expected to be generated by V23 (72 million kg; 160 million lbs for total project), followed by Station Set V32 (54 million kg; 120 million lbs for total project). This accounts for 97.5 percent by weight of all baseline hazardous waste generation. The combined waste generated by all other Station Sets is projected to be 2.5 orders of magnitude less by weight than waste generation at V23 and V32.

Expressed as percentages by weight (Figure 2), Station Set V23 is projected to generate 55.7 percent of the total under normal operating conditions; V32 approximately 41.8 percent; and V19 and V31, less than 1 percent each. The balance of these wastes (i.e., 0.9 percent) will be generated mainly by Station Sets V17 and V21.

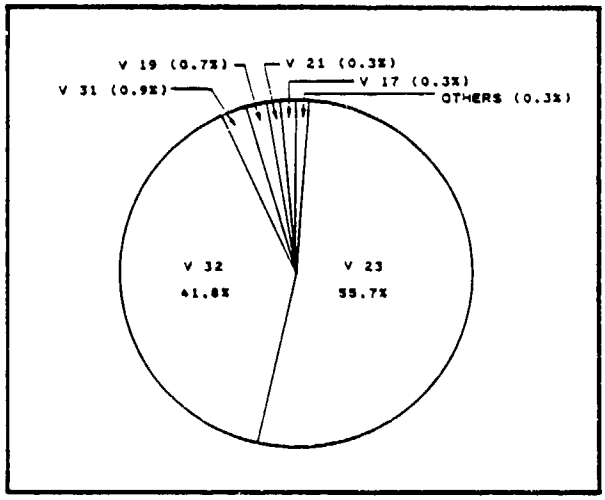

Figure 2. Baseline quantities of hazardous waste generated by STS ground operations at VAFB (reported by station set).

According to Table 3, estimated total project waste generated under contingency conditions is 1.4 million kg (3.0 million lbs). The only station sets identified to date as potential generators of contingency wastes are V19, V21, and V23 (Figure 3). Station set V23 will produce approximately 84 percent by weight of all contingency waste.

Investigations into the physical state of the hazardous wastes generated during normal operations indicate that the majority of wastes are in a liquid state (Figure 4a). Major sources of liquid hazardous wastes, as shown in Figure 4c, are expected to be produced during normal ground operations at Station Sets V23 (55.9 percent) and V32 (41.9 percent). Other station sets each produce less than 1 percent of total liquid wastes. In summary, 99.6 percent by weight (1.0 million kg; 2.3 million lbs) of all the hazardous wastes will be in a liquid form (Figure 4a). This translates to 92.7 percent on a volumetric basis.

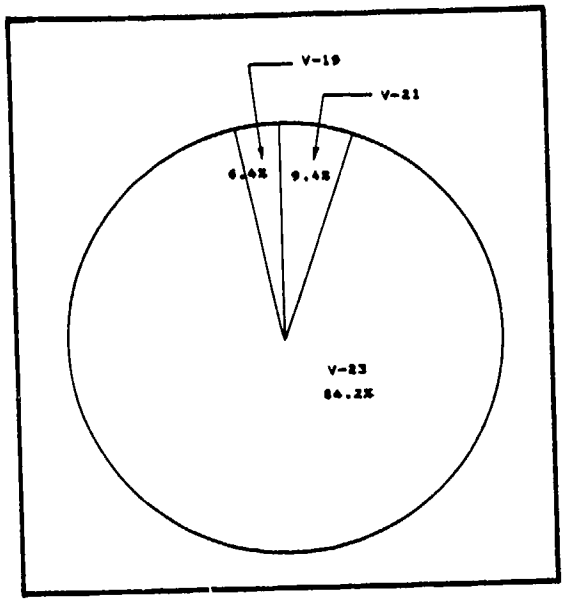

Figure 3. Contingency waste generated by STS ground operations at VAFB (Station Sets V19, V21 and V23).

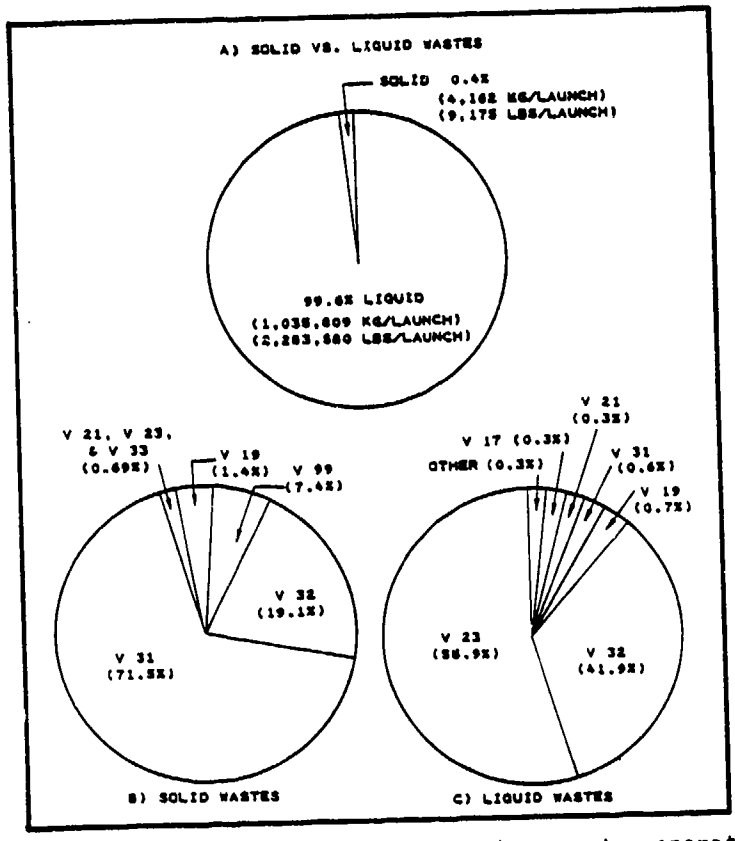

Figure 4. Physical state of hazardous waste generated by STS ground operations at VAFB under baseline conditions (reported by station set).

Only 0.4 percent by weight (7.3 percent by volume) of all hazardous wastes are expected to be in a solid state (Figure 4a). Most solid waste will be produced by Station Set V31 (71.5 percent) and Station Set V32 (19.1 percent) as shown in Figure 4b. Solid waste generation by all other station sets is less than 10 percent of total solids.

4. MAJOR TYPES OF WASTES GENERATED

Waste categories generated in the largest quantities are expected to be:

- Quench water (QW).
- SRB wash water (SB).
- Insulation wastewater (or "suprawater") (IW).
- SRB initial rinse (SI).
- Contaminated seawater (CS).
- Nonaqueous solvent wastes (SO).
- EEW&S wastewater (EW).
- Fuel spill cleanup wastes (FS).
- Hydrazine scrubber effluent (HS).

These wastes are estimated to constitute 99.4 percent by weight of total waste generation (129 million kg; 284 million lbs). The QW is projected to be the most predominant waste type,

followed by SB and IW wastes. As shown in Figure 5a, these three waste types constitute 54.6, 20.4, and 17.8 percent by weight, respectively, of the total quantity of wastes generated by the major waste categories. Other major waste categories produce 7.2 percent of the total waste. The remaining 0.6 percent of waste is associated with the following minor categories (Figure 5b):

- Adhesive wastes (AW).
- Batteries (BA).
- Contaminated air filters (CA).
- Catalytic bed wash water (CB).
- Containers (CN).
- Contaminated rags (CR).
- Hydraulic fluids (HF).
- Hydrazine (HY).
- Insulation wastes, solid (IN).
- Monomethyl hydrazine (MH).
- Ammonia or ammonia wastewater (NH).
- Nitrogen tetroxide (NO).
- Oxidizer spill cleanup (OS).
- Paint wastes (PA).
- Paint wastewaters (PW).
- Solvent reducer wastes (SR).
- Solvent wastewaters (SW).
- Worn-out parts (WP).

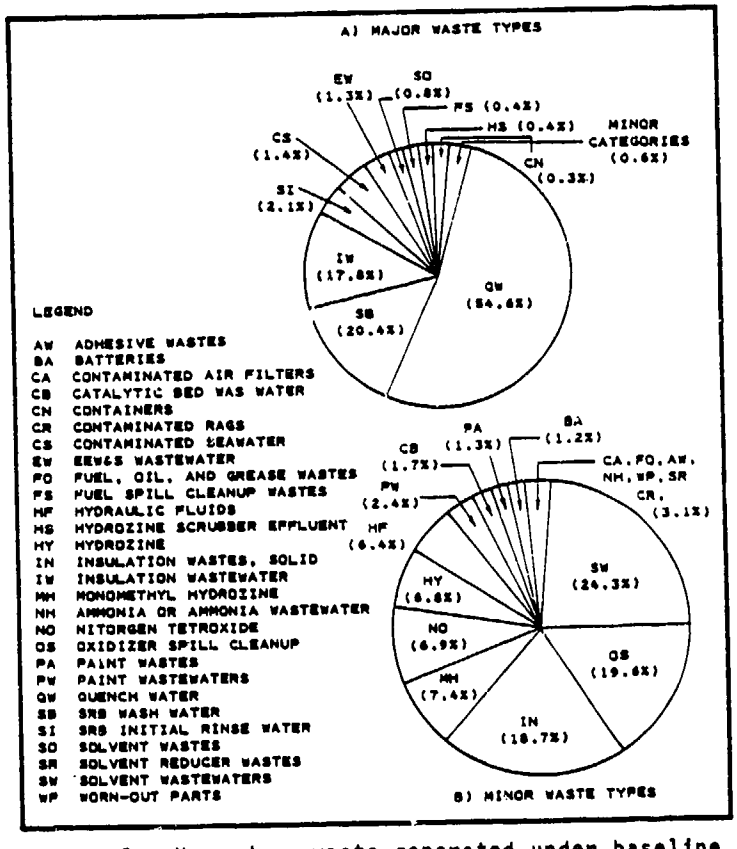

Figure 5. Hazardous waste generated under baseline conditions, by waste type.

The first three minor categories are expected to jointly contribute over 60 percent by weight to the 0.6 percent of minor wastes.

5. HAZARDOUS AND ACUTELY HAZARDOUS WASTES

Further breakdown of wastes into hazardous and acutely hazardous categories reveals that only 1.8 percent by weight of total hazardous wastes are expected to exhibit acutely hazardous properties (Figure 6a). Primary generators of acutely hazardous waste will be Station Sets V19 (37.0 percent), V23 (25.8 percent), V21 (18.2 percent), and V17 (14.9 percent) (Figure 6b). The remaining 4.1 percent is expected to be generated by Station Sets V31 and V32 (3.3 and 0.8 percent, respectively) (Figure 15b). As shown in Figure 7, most of the hazardous wastes generated by Station Sets V17, V19 and V21 are expected to exhibit acutely hazardous properties.

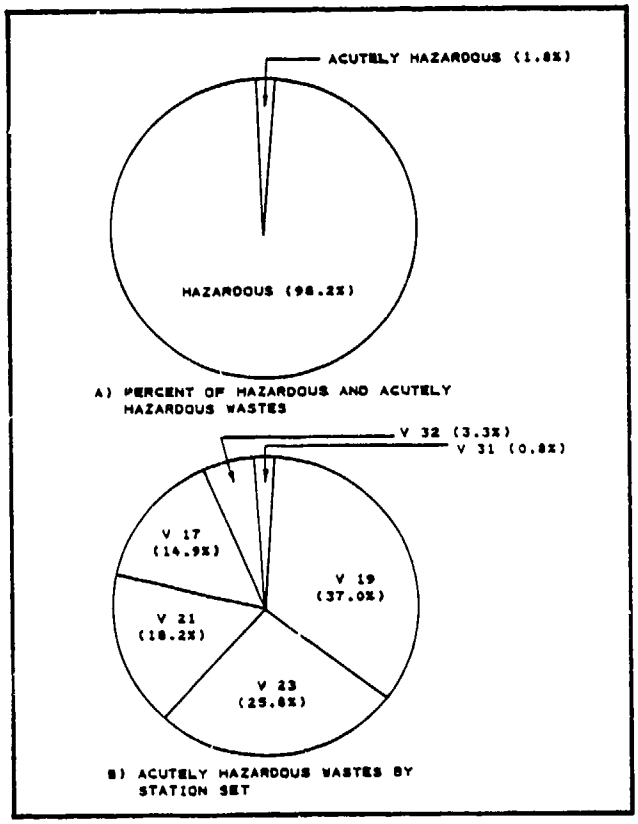

Figure 6. Hazardous and acutely hazardous waste generation under baseline conditions.

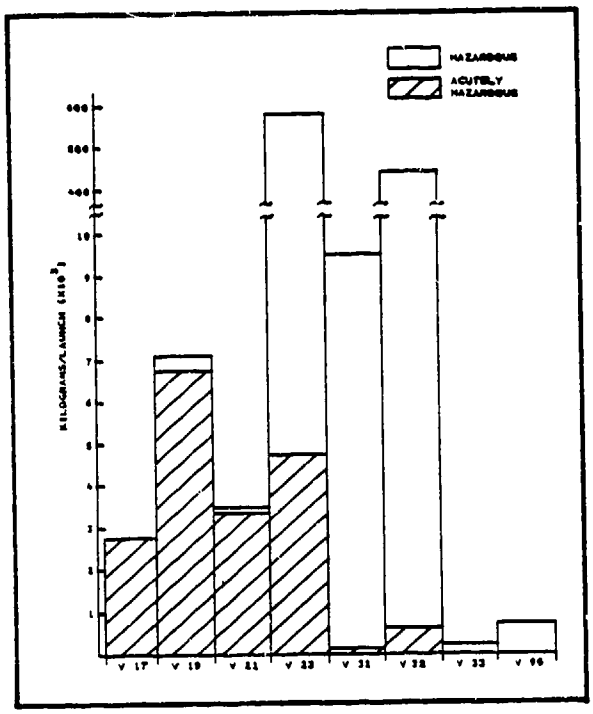

Figure 7. Comparison of hazardous and acutely hazardous waste generation under baseline conditions (reported by station set on a per launch basis).

Generation rates for hazardous and acutely hazardous wastes are provided in Tables 4 and 5. Total projected baseline quantities of hazardous and acutely hazardous waste per launch are 1.0 million kg (2.2 million lb) and 0.02 million kg (0.04 million lb), respectively (Table 4). Consequently, the projected cumulative generation of these wastes for the period 1985 through 1994 is expected to be 128 million kg (282 million lb) and 2.3 million kg (5.1 million lb), respectively (Table 5).

TABLE 4. SUMMARY OF HAZARDOUS AND ACUTELY HAZARDOUS WASTE GENERATION PER MONTH, 1985-1994

	Per Launch		1985 Monthly		1986 Monthly		1987 Monthly		1988-1994 Monthly	
	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds
Acutely Hazardous Wastes	18,333.3	40,418.3	6,111.1	13,472.8	9,166.7	20,209.2	15,277.8	33,681.9	22,916.7	50,522.9
Hazardous Wastes	1,021,637.3	2,252,336.7	340,545.7	750,778.7	510,818.6	1,126,168.3	851,365.7	1,876,947.9	1,277,047.1	2,815,421.6
TOTAL	1,039,970.6	2,292,755.0	346,656.8	764,251.5	519,985.3	1,146,377.5	866,642.5	1,910,629.8	1,299,963.8	2,865,944.5

TABLE 5. SUMMARY OF HAZARDOUS AND ACUTELY HAZARDOUS WASTE GENERATION PER YEAR, 1985-1994

	1985		1986		1987		1988-1994 (per year)		Total for Project	
	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds
Acutely Hazardous Wastes	73,333.4	161,673.2	110,000.0	242,509.8	183,333.4	404,183.0	275,000.1	606,274.5	2,291,667.1	5,052,287.5
Hazardous Wastes	4,086,548.6	9,009,344.8	6,129,824.0	13,514,020.2	10,216,376.6	22,523,373.0	15,324,566.9	33,705,092.5	127,704,636.9	281,542,017.5
TOTAL	4,159,882.0	9,171,018.0	6,239,824.0	13,756,530.0	10,399,710.0	22,927,556.0	15,599,566.0	34,391,366.0	129,996,304.0	286,594,304.0

SECTION 2

FEDERAL AND STATE REGULATIONS FOR HAZARDOUS WASTE GENERATORS

The U.S. Environmental Protection Agency (EPA) has developed a nationwide program to regulate hazardous wastes from generation to final disposal, through directives in the Resource Conservation and Recovery Act (RCRA) of 1976 (PL94-580). These regulations are not industry-specific; all industries, including Department of Defense (DOD) facilities, which generate, store, transport, treat, or dispose of hazardous wastes, are affected by RCRA and must comply with the same set of rules. Vandenberg Air Force Base (VAFB) is considered a generator of hazardous waste, and, depending on its final waste management plan, may also be considered as a storage, treatment, and/or disposal facility.

This section provides a comparison between federal (RCRA) and California (Title 22) hazardous waste regulations. Responsibilities of the hazardous waste generator are also discussed, and include RCRA requirements as well as additional requirements imposed by Title 22. Requirements for transporters and for owners and operators of storage, treatment, and disposal facilities are presented in Volume II. It is important to note that the requirements discussed in this report reflect regulations on the record as of December 1980. Many changes in both state and federal hazardous waste regulations are anticipated for 1981.

The major provisions under RCRA for controlling hazardous wastes are:

- 40 CFR Part 260: Definitions used in other parts corresponding to Sections 3001 through 3004 RCRA rules, and general provisions applicable to these parts (FR date 5/19/80, Part II).
- 40 CFR Part 261: Section 3001: Identification and listing of hazardous waste (FR date 5/19/80, Part III).
- 40 CFR Part 262: Section 3002: Standards applicable to generators of hazardous waste, including manifest system, recordkeeping, and reporting (FR date 5/19/80, Part V).
- 40 CFR Part 263: Section 3003: Standards applicable to transporters of hazardous waste, including manifest system, recordkeeping, and reporting (FR date 5/19/80, Part VI).

- 40 CFR Part 264: Section 3004: Standards applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities, including manifest system, recordkeeping, and reporting (FR date 5/19/80, Part VII).

- 40 CFR Part 265: Section 3004: Interim status standards applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities (FR date 5/19/80, Part VII).

- 40 CFR Parts 122 and 124: Section 3005: Permits for treatment, storage, and disposal of hazardous waste (FR date 5/19/80, Part X).

- 40 CFR Part 123: Section 3006: Guidelines for authorized state hazardous waste programs (FR date 5/19/80, Part X).

- Section 3010: Preliminary notification of hazardous waste activity (FR date 2/26/80).

Section 3006 of RCRA provides for individual states to operate their own hazardous waste programs (HWP) in lieu of the federal program. Title 40 CFR, Part 123, establishes minimum requirements which state HWP's must meet in order to receive EPA approval. The State of California Department of Health Services (CDHS) and the State Water Resources Control Board have applied for interim authorization (Phase I) to administer a state HWP. It is anticipated that interim authorization will be granted by April 1981. With interim authorization, California can operate its own HWP for 2 years after the effective date of the federal regulations. Final or full authorization will be granted if California's HWP is determined by EPA to be equivalent to and consistent with the federal program. The California HWP could be fully authorized by the November 1983 deadline, 2 years prior to the first space shuttle launch at VAFB. For the present, California waste generators must meet both current California Title 22 and RCRA standards (by the time California is granted full authorization, all applicable RCRA regulations will have been incorporated into Title 22). DOD facilities operating in California must, by executive order, comply with all California laws. Milestone events for implementing the California HWP are as follows (5):

1981 Program interim authorization will be received; electronic data processing system will be operational; statewide surveys of hazardous waste production will be completed.

1981 Hazardous waste recycling clearinghouse will match waste producers with potential markets for wastes; technical information center will provide rapid response to emergencies, and provide information

about waste characteristics, treatment, methods, etc.

1982 Full staff will be "on board," and the state HWP plan will be completed.

1983 All qualified hazardous waste facilities will be under permit.

Although federal requirements will not preempt California law, they will impose a second layer of control on California generators and handlers of hazardous waste who must comply with the most restrictive standard, whether federal or state. For example, states may not preempt federal regulations by imposing any requirement that might interfere with the free movement of hazardous wastes across state boundaries to treatment, storage, or disposal facilities holding an RCRA permit. An outline comparing the fundamental differences between EPA and CDHS regulations for generators of hazardous wastes is presented in Table 6.

Responsibilities of Generators

In order to comply with both EPA and California regulations, a California generator will have the following duties and obligations:

Identifying Hazardous Wastes--It must first be determined if a waste meets the hazardous waste criteria as defined in the RCRA (40 CFR 261) and/or the California Administrative Code (CAC), Title 22. Any solid waste (see glossary definition of a solid waste) is considered hazardous if it is flammable, corrosive, toxic, reactive, irritating, a strong sensitizer, or exhibits EP toxicity. The definitions of these hazardous characteristics are found in 40 CFR 261, Subpart C, and in CAC Title 22. A detailed explanation of these characteristics is found in Appendices B and C. Federal regulations also identify specific wastes considered to be acutely hazardous (40 CFR 261, Subpart D). Similar, but not identical, to the EPA listing are the extremely hazardous wastes identified in CAC Title 22. Eventually, the California rules will include all of EPA's listed wastes, and perhaps additional wastes which the state considers hazardous. For the present, all wastes listed by EPA and the State of California must be manifested. However, EPA annual reports require only EPA-listed wastes.

If a waste is unlisted, a generator may choose to test the suspected waste to determine whether or not it is hazardous, or may declare the waste to be hazardous without testing, based on a knowledge of its hazardous properties (45 FR 262.11). Test protocols are published in Test Methods for Evaluating Solid Waste, USEPA Office of Water and Waste Management, SW-846, 1980.

Small-Quantity Generator Exceptions--Under the EPA regulations, small waste generators (i.e., <1,000 kg/mo hazardous

TABLE 6. COMPARISON OF FEDERAL AND CALIFORNIA REGULATIONS FOR GENERATORS OF HAZARDOUS WASTES SHIPPING TO AN OFF-SITE TREATMENT, STORAGE, OR DISPOSAL FACILITY (41)

Federal	State
Determine if waste is hazardous as defined in 40 CRF, Part 261.	Determine if waste is hazardous as defined in Cal. Ad., Title 22, Div. 4.
Obtain EPA Identification Number (ID#).	--
Obtain EPA Facility Permit if waste has accumulated on generators property for more than 90 days.	Obtain Facilities Permit from CDHS if waste has been stored on property for more than 60 days.
Use proper containers and label properly.	Same
Prepare EPA-specified transport manifest (California Liquid Waste Haulers Manifest permissible for use during interim period).	Must use California Liquid Waste Haulers Manifest (EPA data will be included in future); manifest will eventually be consistent with EPA requirements.
Ship hazardous waste only by a transporter with an EPA identification number.	Ship hazardous waste only with a transporter permitted by CDHS.
Make sure that waste arrives at designated facility.	Same
Submit annual summary of waste disposal activities (Annual Report) and file 45-day Exception Reports for missing manifests to EPA Regional Administrator.	Send copies of all Hazardous Waste Manifests to CDHS every 30 days. Must also report to EPA Region IX annually and make 45-day Exception Reports for missing manifests.
Must keep manifests, annual reports, exception reports, and test results for a period of 3 years.	Reports on hazardous waste activities must be kept for a period of not less than 1 year.

waste; <1 kg/mo acutely hazardous waste) are exempt from record-keeping/manifest requirements (45 FR 261.5). California regulations are more stringent, allowing no exemptions. Even if the generator would qualify as a small generator under RCRA, no exemption would be allowed under California law. California does provide a variance for small quantities or low concentrations. Exact quantities and concentrations are not specified, but the general description states insignificance as a potential hazard to human health, domestic livestock, or wildlife. EPA plans to amend the small generator exceptions over the next 2 to 5 years, possibly reducing the present limit for hazardous wastes from 1,000 to 100 kg/mo. The limit for acutely hazardous waste is not expected to change.

Notification of Hazardous Activities--Within 90 days from the time that operations at the space shuttle facility commence, and before any waste can be transported, the generator will be required to notify the EPA Region IX Administrator and apply for an EPA identification number (45 FR, Part 262.12; 45 FR, Page 12746). If the generator also plans to own/operate facilities for treatment, storage, or disposal of hazardous waste, it may file a single form to cover all activities that occur on the base. There are stiff penalties for failing to notify EPA, including suspension of all operations.

Transportation of Hazardous Wastes--The generator has two options available if hazardous waste is to be transported off site. They may contract with a state-licensed commercial hauler, or transport waste themselves, in which case they must obtain an EPA Transporter's Identification Number (45 FR 263.11) and a California Registered Hazardous Waste Hauler's Permit (CAC Title 22). In addition, they must comply with all applicable EPA (40 CFR 263.11 and 263.31) and Department of Transportation (Hazardous Materials Transportation Act, 49 CFR Parts 171 through 179) regulations. A generator must insure that the hazardous waste is properly containerized and labeled, and that trucks are placarded in accordance with EPA (40 CFR Part 262.30) and DOT (49 CFR Parts 171 through 179) regulations controlling the transportation of hazardous materials.

Hazardous Waste Manifest--Before shipping any hazardous wastes, a generator must prepare the California Hazardous Waste Manifest. Figure 8 presents the new California Hazardous Waste Manifest, which has been developed to insure that California hazardous waste generators, transporters, and facility operators will be in conformance with both the requirements of the new federal hazardous waste regulations adopted pursuant to RCRA, and the requirements of state law. The new manifest will replace the current California Liquid Waste Hauler Record or hazardous waste manifest.

As has been the practice in the past, transporters are expected to print their own manifests. Each manifest will have a unique serial number, as described in Item 1 of "Instructions for

SEE REVERSE SIDES FOR INSTRUCTIONS PLEASE TYPE OR PRINT CLEARLY

PRESS HARD

CALIFORNIA HAZARDOUS WASTE MANIFEST

STATE DEPARTMENT OF HEALTH SERVICES
HAZARDOUS MATERIALS MANAGEMENT SECTION
744 P STREET, SACRAMENTO, CA 95814

① MANIFEST NUMBER

GENERATOR (GENERATOR MUST COMPLETE)

① NAME
EPA NO
ADDRESS
CITY STATE ZIP CODE
PHONE NO.
ORDER PLACED BY — ORDER DATE
P.O. CONTRACT NO.

② DESIGNATED TSD FACILITY
NAME
EPA NO
ADDRESS
CITY STATE ZIP CODE
PHONE NO.

③ ALTERNATE TSD FACILITY
(AUTHORIZED TO OPERATE UNDER AN APPROVED STATE OR FEDERAL PROGRAM)
NAME
EPA NO.
ADDRESS
CITY STATE ZIP CODE
PHONE NO

④ U.S. DOT PROPER SHIPPING NAME	U.S. DOT HAZARD CLASS	UN/NA ID NO	WEIGHT OR VOLUME	UNITS	CONTAINERS NUMBER
WASTE					DRUMS ☐ BAGS ☐ CARTONS ☐ DUMP TRUCK ☐ TANK TRUCK ☐ OTHER
WASTE					

⑤ WASTE CATEGORY
⑥ LIST COMPONENTS:

		CONC. RANGE UPPER	LOWER	UNITS
A				% ☐ PPM ☐
B				% ☐ PPM ☐
C				% ☐ PPM ☐
D				% ☐ PPM ☐

⑦ EX. HAZ. WASTE PERMIT NO.
⑧ GENERATING PROCESS

		CONC RANGE UPPER	LOWER	UNITS
E				% ☐ PPM ☐
F				% ☐ PPM ☐
G				% ☐ PPM ☐

NONHAZARDOUS MATERIAL %

⑨ WASTE PROPERTIES pH ☐ TOXIC ☐ FLAMMABLE ☐ CORROSIVE/IRRITANT ☐ REACTIVE ☐ SENSITIZER ☐ CARCINOGEN/MUTAGEN
⑩ PHYSICAL STATE ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ GAS ☐ OTHER
⑪ SPECIAL HANDLING INSTRUCTIONS. ☐ GLOVES ☐ GOGGLES ☐ RESPIRATOR ☐ OTHER

GENERATOR CERTIFICATION: THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED & LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION AND THE EPA.

IN THE EVENT OF A SPILL CONTACT THE NATIONAL RESPONSE CENTER, U.S. COAST GUARD 1-800-424-8802.

⑫ SIGNATURE OF AUTHORIZED AGENT & TITLE — DATE

TRANSPORTER (HAULER MUST COMPLETE)

⑬ NAME
EPA NO
ADDRESS
CITY STATE ZIP CODE
PHONE NO

JOB NO
UNIT NO

⑭ PICK UP DATE
TIME ☐ AM ☐ PM

⑮ SIGNATURE OF AUTHORIZED AGENT & TITLE

TSD FACILITY (OPERATOR MUST COMPLETE)

⑯ NAME
EPA NO

⑰ QUANTITY (IF MEASURED)
⑱ STATE FEE (IF ANY) $

⑲ HANDLING OR DISPOSAL METHOD
☐ SURFACE IMPOUNDMENT ☐ LANDFILL
☐ INJECTION WELL ☐ LAND TREATMENT
☐ TREATMENT (SPECIFY)
☐ RECOVERY OR REUSE ☐ STORAGE/TRANSFER

⑳ INDICATE ANY SIGNIFICANT DISCREPANCIES BETWEEN MANIFEST AND SHIPMENT

㉑ IF WASTE IS HELD FOR DELIVERY ELSEWHERE, SPECIFY THE DESIGNATED TSD FACILITY
NAME
EPA NO

㉒ SIGNATURE OF AUTHORIZED AGENT & TITLE — DATE ACCEPTED

REVISED 11.80

Figure 8. California hazardous waste manifest form.

INSTRUCTIONS FOR COMPLETING MANIFEST

TYPE OR PRINT CLEARLY. ILLEGIBLE OR INCOMPLETE MANIFESTS WILL BE RETURNED TO YOU BY THE STATE FOR CLARIFICATION.

GENERATOR

Item 1 Before filling out the manifest, a unique manifest serial number shall be written or printed on the manifest. (Refer to TRANSPORTER Item 1 below)

Item 2-4 Provide the complete names, EPA I.D. numbers, addresses, and telephone numbers of the generator and designated TSD facilities.

Item 5 Provide all U.S. DOT required information. Refer to 49 CFR 172 for assistance. If not applicable write "none" on Item 5.

Item 6 Provide the most applicable industrial waste category number from the following list. In cases where a waste could be described by more than one category, select the most specific. (Example: If you generate a waste acid plating solution containing dissolved metal, select the category "Plating solution, acid" rather than "Acid solution" or "Heavy metal solution". If none of the listed categories adequately described your waste, write the waste's category on Item 6).

1 Acid sludge	14 Bilge water	27 FCC waste	40 Ink wastewater	53 Photoresist waste	66 Solvent degreasing
2 Acid solution	15 Blasting sand	28 Filter cake	41 Laboratory chemicals	54 Photographic developing waste	65 Solvent mixture
3 Adhesive	16 Capacitors, PCB	29 Fuming liquid	42 Lime sludge	55 Plating sludge	67 Spent chlorinated solvent
4 Alkaline sludge	17 Catalyst	30 Frit	43 Machining oil/coolant	56 Plating solution, acid	68 Spent halogenated solvent
5 Alkaline solution	18 Chemicals, unused	31 Fly ash	44 Machining waste	57 Plating solution, alkaline	69 Sulfide sludge
6 Alum solids	19 Containers, empty	32 Gasoline and water	45 Metal dust	58 Polychlorinated biphenyls (PCBs)	70 Sump or flotation solids
7 Alum sludge	20 Contaminated equipment	33 Grease sludge	46 Oil	59 Resin waste	71 Tank bottom sediments
8 API separator sludge	21 Contaminated soil	34 Glue	47 Oil sludge	60 Scrubber sludge	72 Tanning sludge
9 Asbestos solids	22 Cyanides	35 Pipe scale	48 Oil and water	61 Scrubber solution	73 Textile/dye lime sludge
10 Asbestos sludge	23 Detergent	36 Heavy metal solution	49 Paint sludge	62 Soap	74 Transformers, PCB
11 Ashes	24 Electroplating solutions	37 Heavy metal sludge	50 Pesticides	63 Solvent concentrate	75 Waste water treatment sludge
12 ABS/Resin sludge	25 Drilling mud	38 Ink and adhesive	51 Pesticide containers	64 Solvent hydrocarbon	
13 Explosive waste	26 Drugs				

Item 7 If the waste is a hazardous waste, provide the 4-digit hazardous waste number.

Item 8 Indicate the process, activity, or operation which generated the waste (Examples: air craft cleaning, insulation stripping, reactor cleaning, DDT production, silk screen, printed circuit board etching).

Item 9 Information must be provided in Item 9. Do not leave blank. Identify the major hazardous constituents in the waste along with probable upper and lower concentrations. (Examples: hydrochloric acid, lead oxide, phenol, PCB, cyanide, DDT, sodium hydroxide). Provide the approximate concentration of nonhazardous material.

Item 10-11 Check the appropriate boxes to show the hazardous properties and physical state of the waste. If a waste has more than one hazardous property (e.g., toxic and corrosive), check all appropriate properties. If the waste is aqueous liquid, the pH must be reported in Item 11.

Item 12 Indicate by checking the appropriate boxes whether gloves, goggles, or respirators should be worn by persons handling the waste. Any special equipment, precautions or hazards should also be noted (Example: Sulfide solution will generate toxic gas if mixed with acids).

Item 13 Sign the manifest, provide your title and the date that the waste was removed from your facility. The persons signing Item 13 shall be knowledgeable about the chemical and physical properties of the waste and shall be authorized by the management of the generating establishment to sign the manifest. It is unlawful for a transporter who is not the generator to sign Item 13.

TRANSPORTER

Item 1 Provide the serial number of the manifest. The first three digits shall be your State hazardous waste hauler number. The last six digits may be any convenient combination of digits (e.g. sequential or chronological). For example, if your registration number is 009, the numbers on your one thousandth load would be 009 001000. The complete nine digit manifest number should be unique for any 5 year period (Example: If you use manifest number 009 001000 on May 31, 1981, it should not be used on a manifest again before June 1, 1986).

Item 10 Enter company name, EPA I.D. number, address, and telephone number.

Item 15 Indicate the date and exact time the waste was removed from the generator's facility.

Item 16 Sign the manifest upon receipt of the shipment.

The driver shall carry a copy of the manifest in a location prescribed in 49CFR 177.817(e).

TSD FACILITY OPERATOR

Item 17 Provide the TSD facility name and EPA I.D. number.

Item 18 If the quantity of waste is measured or estimated at the TSD facility (e.g. weighed), indicate the quantity.

Item 19 If the waste is applied to the land (e.g., surface impoundment, landfill, injection well, or land treatment area), the State hazardous waste fee must be sent to DOHS. Indicate the fee in Item 19.

Item 20 Write in any discrepancies noted between the manifest information provided by the generator or transporter, and that found when the shipment was delivered to the facility. (Examples: differences in quantity or character of waste, container type, vehicle type). Some significant discrepancies are described in 40CFR 264.72.

Item 21 Check the box(s) to indicate the method(s) used to handle or dispose of the waste at the hazardous waste facility. If the waste is treated prior to, or instead of, land disposal, write in the treatment method (Examples: neutralization, incineration, oxidation).

Item 22 If the waste is held at the TSD facility prior to eventual shipments to another facility for treatment, storage or disposal, provide the name of the designated final TSD facility, and its EPA I.D. number. In such cases, you, as the facility (transfer station) operator, shall fill out a new master manifest indicating your facility as the generator of the waste and describing all wastes in the shipment. Completed copies of all original manifests associated with the original waste shipments accepted by you shall be attached to the master manifests.

Item 23 Sign the manifest, provide your title within the organization and indicate the date that the shipment was accepted at your facility.

The facility operator shall send a copy of the completed manifest to the DOHS on a monthly basis or as otherwise required. If wastes are received from transfer facilities, the final TSD facility shall send a copy of each master manifest to DOHS with copies of all original manifests stapled to it.

Transfer facilities shall send only one set of copies to DOHS to satisfy the manifest information requirements for generators and TSD facility operators.

Distribution of Manifest Copies:		
	Copy Number 1 (original)	TSDF keeps (send photocopy to DOHS)
	Copy Number 2	To Transporter after signed by TSDF
	Copy Number 3	To Generator from TSDF
	Copy Number 4	Generator keeps after signed by Transporter (send photocopy to DOHS)

TO INSURE LEGIBLE COPIES USE ONLY BLACK CARBON INSERTS OR BLACK PRINT CARBONLESS TRANSFER PAPER.

Figure 8 (continued),

Completing Manifest" (see Figure 9). The instructions will be printed on the backs of each manifest and manifest copy. These instructions specify the requirements for using the manifest, for transferring waste, and for distributing manifest copies.

The new federal regulations, which became effective on November 19, 1980, require that certain information which was not previously required by California law now be provided on all hazardous waste manifests. That information includes the following:

- EPA I.D. number of the generator, transporter, and TSD (treatment, storage, and disposal) facilities.
- Hazardous materials descriptions as required by the U.S. Department of Transportation in 49 CFR.
- The name, address, and EPA I.D. of the TSD facility designated by the generator to receive the waste, and, if desired, an alternate facility.
- A generator's certification with the statement exactly as shown on the enclosed manifest.

The current Liquid Waste Hauler Record cannot be used after December 31, 1980. On January 1, 1981, the new manifest will be the only acceptable shipping document to accompany hazardous waste shipments in California. Questions regarding the new manifest or its use should be directed to one of the following Hazardous Materials Management Section offices:

Sacramento

Hazardous Materials Management Section
714 "P" Street
Sacramento, California 95814
(916) 322-2337

Berkeley

Hazardous Materials Management Section
2151 Berkeley Way, Room 140
Berkeley, California 94704
(415) 540-2043

Los Angeles

Hazardous Materials Management Section
107 S. Broadway, Room 7012
Los Angeles, California 90012
(213) 620-2380

After completing the manifest and transferring the waste to the transporter, a designated person representing the generator signs the certification on the original manifest and all copies

GSA No. 12348 XX
Form Approved OMB No. 158-R0XX

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
HAZARDOUS WASTE REPORT

PLEASE PLACE LABEL IN THIS SPACE

I. TYPE OF HAZARDOUS WASTE REPORT

PART A: GENERATOR ANNUAL REPORT
THIS REPORT IS FOR THE YEAR ENDING DEC. 31 19

PART B: FACILITY ANNUAL REPORT
THIS REPORT FOR YEAR ENDING DEC. 31 19

PART C: UNCLASSIFIED WASTE REPORT
THIS REPORT IS FOR A WASTE RECEIVED (Mo., Day, & Yr.) - -19

INSTRUCTIONS: You may have received a preprinted label attached to the back of this pamphlet; affix it in the designated space above. If you find the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Sections II, III, and IV below blank. If you did not receive a preprinted label, complete all sections. "Installation" means a single site where hazardous waste is generated, treated, stored, or disposed of. Please refer to the specific instructions for generator or facilities before completing this form. The information requested herein is required by law (Section 3001(b)(3) of the Resource Conservation and Recovery Act).

II. INSTALLATION'S EPA I.D. NUMBER

III. NAME OF INSTALLATION

IV. INSTALLATION MAILING ADDRESS
STREET OR P.O. BOX
CITY OR TOWN | ST. | ZIP CODE

V. LOCATION OF INSTALLATION
STREET OR ROUTE NUMBER
CITY OR TOWN | ST. | ZIP CODE

VI. INSTALLATION CONTACT
NAME (First and Initial) | PHONE NO. (Area code, & no.)

VII. TRANSPORTATION SERVICES USED (for Part A reports only)
List the EPA Identification Numbers for those transporters whose services were used during the reporting year represented by this report.

VIII. COST ESTIMATES FOR FACILITIES (for Part B reports only)
A. COST ESTIMATE FOR FACILITY CLOSURE | B. COST ESTIMATE FOR POST CLOSURE MONITORING AND MAINTENANCE (Disposal facilities only)
$ | $

IX. CERTIFICATION
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. PRINT OR TYPE NAME | B. SIGNATURE | C. DATE SIGNED

EPA Form 8700-13 (8-80)

PAGE 1 OF ____

GSA No. 12349 XX
Form Approved OMB No. 158-R0XX

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
GENERATOR ANNUAL REPORT – PART A
(Collected under the authority of Section 3001 of RCRA)

FOR OFFICIAL USE ONLY (Items I and II)
I. DATE RECEIVED - -19
II. TYPE OF REPORT

X. GENERATOR'S EPA I.D. NO.

XI. FACILITY'S EPA I.D. NO.

XII. FACILITY ADDRESS (street or P.O. Box, city, state, & zip code)

XIII. FACILITY NAME (optional)

XIV. WASTE IDENTIFICATION

Line No.	A. DESCRIPTION OF WASTE	B. DOT NO. ZIPPO CLASS	C. EPA HAZARDOUS WASTE NUMBER (see instructions)	D. AMOUNT OF WASTE	E. UNIT OF MEASURE (Pounds, Gallons, Cubic Yards)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

XV. COMMENTS (enter information by line number – see instructions)

EPA Form 8700-13A (8-80)
BILLING CODE 6560-01-C

PAGE ____ OF ____

Figure 9. EPA forms 8700-13 and 8700-13a.

(one for each person handling the waste). The transporter then signs and dates the manifest and returns one copy to the generator, who retains it until a copy is received from the designated permitted facility following delivery of the waste. A generator is required to initiate a trace if it does not receive a copy of the manifest from the disposal facility within 35 days after the waste has been shipped. All contacts made while tracing a delinquent manifest should be well documented. If the manifest has not been received within 45 days after shipment, the generator must report the incident to CDHS at (916) 322-2337. Supporting documentation may be required.

Reporting Requirements for Generators--The generator will be required to send copies of all manifests from the previous month to California Department of Health Services, Hazardous Materials Management Branch, 744 P Street, Sacramento, California 95814. In addition, federal regulations require an annual report from generators who ship hazardous waste off site (45 FR 262, Subpart D). The Annual Report is made on EPA Forms 8700-13 and 8700-13a (Figure 9), and sent to CDHS in Sacramento. (If, however, a generator decides to treat, store, or dispose of wastes on base, it must submit an Annual Report covering those wastes in accordance with the provisions of 40 CFR Parts 264, 265, and 266, and with 40 CFR Part 122. In addition to following requirements, generators must comply with reporting requirements for TSD facilities, and should make provisions to hold all records, manifests, and reports for 3 years.

Manifest requirements are somewhat different for rail shipment or bulk shipment of hazardous wastes by water. The generator should consult the regulations if such means are used to transport wastes to permitted handling facilities (45 FR 263, Subpart B).

Disposal of Extremely Hazardous Waste by Generators--Some of the wastes generated by the STS (e.g., monomethyl hydrazine) are defined as extremely hazardous (CAC Sections 66064 and 66680 to 66685). No extremely hazardous waste shall be handled or disposed of in California without an Extremely Hazardous Waste Disposal Permit issued by the state. The generator must apply for this permit at least 15 days prior to the intended date of disposal. It can be expected that TSD facilities will require generators to make arrangements prior to shipment of these special wastes to their sites. Unexpected shipments will be returned at the generator's expense.

Storage Treatment and Disposal of Hazardous Wastes by Generators--If a generator stores hazardous wastes on site for more than 60 days (the 90-day limit set by EPA is preempted by California law), or treats or disposes of hazardous wastes on site, they must apply for and receive a Hazardous Waste Facility Permit, and comply with all applicable regulations (45 FR 264, Subpart A).

An inventory of projected hazardous waste to be generated by the STS is presented in Section 3 of this report. Included with the inventory are many of the items required for the EPA Annual Report, such as hazardous waste identification numbers and waste characteristics. The following section describes the methodology and assumptions used in developing the inventory.

SECTION 3

METHODOLOGY AND ASSUMPTIONS

As of the date of the compilation of this inventory, there have been no space shuttle launches or landings, either at VAFB or KSC. Consequently, operational data regarding waste generation are not yet available. Waste types and quantities must be estimated based on design specifications and projections of materials used. In many cases, these estimates can be related to similar operations, such as aircraft maintenance and conventional rocket launches.

In compiling this inventory, SCS made as much use as possible of existing documentation relating to the proposed space shuttle operation at VAFB. This documentation is listed in the bibliography. In general, the most relevant documents were those concerned with occupational safety and air emissions, since both of these address chemical types and quantities. However, because their inherent purpose differs appreciably from the compilation of a hazardous waste inventory, many and often sizeable data gaps exist.

An attempt was made to bridge these gaps and to complete the data base through direct contact with contractors and Air Force personnel involved in the design of the space shuttle, and related ground operations, facilities, and procedures. Ultimately, a number of questions remain regarding quantities of waste generated and waste forms. Consequently, a number of assumptions and simplifications were necessary to make this inventory as complete as possible. These assumptions and simplifications are detailed below. There are still several areas of uncertainty, however, and in the inventory which follows, a number of wastes are listed without quantity data. This means that a potential hazardous waste was identified, but insufficient information was available at the time of this inventory to produce a reasonable estimate of quantities per launch cycle.

In addition, there were other potentially hazardous wastes identified which are not included in the inventory, i.e., orbiter self-destruct ordnance (SDO) and potential pollution control wastes. It has been established that SDO waste will be generated whenever the orbiter and SRB are deactivated. This waste is hazardous (reactive) under EPA regulatory definitions. However, there are existing military ordnance handling and disposal practices which may be applicable to the shuttle program, and there is an existing ordnance disposal facility at Pt. Mugu. Pollution

control wastes, other than those identified in the baseline inventory, would have to be considered contingency wastes. In particular, SCS believes it likely that some or all of the solvent vapor emissions projected to be vented may come under new regulatory restraints before or during the course of the shuttle program. If this does in fact occur, additional solvent and air pollution control wastes will be generated. The Air Force is aware of this potential. Detailed information on these and other toxic and hazardous STS-related air emissions is available in the Air Force air emissions inventory (23).

VAFB station sets group the various Shuttle Transport System ground operations processing activities into geographic and functional categories. A geographic station set is a site-specific accumulation of equipment, facilities, hardware, and related resources that constitutes a definitive phase of the ground operations. A functional station set is an aggregate of equipment and services, not limited to or readily identified by location, that provides or supports specific functions of system operations.

The inventory prepared for this draft report includes projections of hazardous wastes for eight geographical station sets (i.e., V18, V19, V21, V23, V31, V32, and V33). The potential for hazardous waste generation at Station Sets V27, V28, V30, V81, V84, V86, and V88 cannot be verified at this time. It is considered that these station sets either (1) generate no hazardous waste under baseline conditions, or (2) generate small quantities of hazardous waste which cannot be quantified based on available information.

Assumptions and simplifications were needed to both identify and quantify some of the hazardous waste streams. There are several general types of assumptions and simplifications that have affected the inventory compilation throughout. These are listed below.

- Except where specified in existing STS/VAFB documents, it is assumed that there will be no reclamation or reuse of excess or waste products. This includes excess paint mixtures, used rags, protective clothing (except SCAPE suits), excess hypergols or hypergols removed from the orbiter after an abort or acquisition screen test, and process waters.

- STS data on procedures, materials, and quantities were used wherever they existed. If no STS data were available, an attempt was made to identify relevant KSC data.

- It is assumed that all materials which are not hazardous in and of themselves, but which come into contact with hazardous materials during use, become hazardous wastes when discarded. These include empty containers, rags, protective clothing, worn-out parts, process waters, etc.

This is in accordance with the RCRA hazardous waste regulations.

- Where the chemical composition of a commercial product used during ground operations was unknown and could not be defined, the composition of similar commercial products was used to determine whether the product contained any listed hazardous materials.

- In the case where waste-producing operations are performed at a given station set under one set of conditions, and at another station set under different conditions, one of these station sets was arbitrarily selected as the waste generator. This was done to avoid duplicate accounting when the waste quantities were totalled. For instance, wastes from external tank closeout operations, which could occur at either V23 or V33, were assigned to the pseudo Station Set 99.

- When similar waste-producing operations were identified at several station sets or at several locations within a single station set, and qualitative/quantitative data were available for only one locale, comparable data (the same or a simple multiple) were used for all of the other locales where the operation could occur.

- Where waste generation data from the literature were given as a range, the high value in the range was taken for this inventory.

- Unless otherwise specified in the documents or through personal communications, it is assumed that 10 percent of all paint, insulation, ablator, etc., used during the ground operations will be wasted.

- In converting from volume to mass units (or vice versa) for mixtures of wastes with uncertain compositions, densities were estimated based upon similar waste types of known density or upon densities of the predominant component of the mix.

SECTION 4

HAZARDOUS WASTE INVENTORY

The operation of the Space Shuttle Program at VAFB in the late 1980's and early 1990's will produce significant volumes and varieties of hazardous materials. An inventory of these wastes is necessary to help comply with recent EPA hazardous waste generator regulations and to assess alternative treatment/disposal options. In addition, a portion of the inventory will be used to prepare a supplement to the final Environmental Impact Statement (EIS) for the program.

The intent of this inventory is to identify and quantify all potentially hazardous solid and liquid wastes likely to be generated at VAFB during the STS ground operations. The basic inventory was compiled on a per launch basis, from which annual, monthly, and total project waste generation was calculated. Values are reported in mass and volume units. Estimates of pollutant concentrations, where applicable, are provided in Volume II of this report. The information in the following tables can be used to estimate the quantities needed for EPA reports, and to provide a supplement to the final EIS. Additionally, these tables will form the basis for the Volume II assessment of treatment/disposal alternatives.

Table 7 is a list of the STS hazardous wastes arranged by station set. From left to right, this table shows:

- STA SET - the station set number. Note that Station Set V99 is a pseudo station set, referring to a combination of Station Sets V23 and V33 (see Section 3 for explanation). The wastes identified at V99 come from external tank closeout activities, which may occur at either V23 or V33.

- CAT - category code. This is a sorting tool for grouping wastes with similar characteristics (see Glossary).

- WASTE MATERIAL - descriptions of the projected hazardous wastes. These wastes may be individual chemicals, excess commercial formulations, or mixed wastes. Items which have been indented slightly in the tables represent the chemical constituents of mixed wastes or commercial products.

- SOL OR LIQ - solid or liquid; the projected physical state of the waste material.

- OPERATION - a brief description, where appropriate, of the particular operation producing the waste material.

- HAZ WST NO. EPA/CAL - EPA and California hazardous waste numbers. Both EPA and the State of California have issued lists of wastes that they consider to be hazardous. These are presented in 45 FR 33084-33133 (40 CFR 261) and CAC, Title 22, Division 4, Chapter 30, Article 9, respectively (see Appendices B and C). The EPA numbers will be needed to complete all of the EPA hazardous waste notification, application, and reporting forms required of all hazardous waste generators under RCRA.

- HAZ PROP. EPA/CAL - the hazardous properties of the wastes, according to EPA and California lists or definitions. This information is useful in determining waste compatibility and assessing treatment alternatives (see Glossary for the meanings of hazard codes).

- CAL COMP CLASS - California compatibility class. Special precautions are needed when managing or treating chemically incompatible wastes. The California Department of Health (Law, Regulations, and Guidelines for Handling of Hazardous Waste, February 1975) developed a set of 12 groups to generally classify incompatible hazardous waste. These incompatibility groups are also listed in 45 FR 33257-33258.

Table 8 is a listing of unit factors for generation of STS hazardous wastes. Unit factors are expressed on a per launch (baseline) and per event (contingency) basis. They are grouped alphabetically by category code for each station set. Mass and volume values are given in both metric and English units. Under the volume column (English units), liquid wastes are given in gallons, and solid wastes in cubic feet. Missing numbers indicate insufficient information to quantify a particular waste.

Baseline wastes are those which can be routinely expected during every launch cycle, and are thus expressed on a per launch basis. In some cases, a particular operation does not occur during every launch cycle, but does occur at regular, launch-related intervals. For these operations, the wastes generated are divided by the launch frequency of the operations, and are presented on an average per launch basis.

Contingency wastes are those which will be generated only sporadically from unplanned events. These include aborts, spills, special tests, etc. Contingency values are expressed as estimated quantities per event; event frequency is denoted in the table footnotes.

Table 8 is the basis for all of the tables which follow. It can be used to estimate annual, monthly, or total project hazardous waste emissions for any launch schedule. Tables 9 and 10 present the annual and average monthly hazardous waste generation for each year of the STS Program, from 1985 through 1994. Table 9 presents the data for 1985, representing 4 launches; Table 10, the data for 1986, representing 6 launches; Table 11, the data for 1987, with 10 launches; and Table 12, the monthly and annual data for the period 1988 through 1994, representing 15 launches. Only one table (Table 12) is used to show the wastes generated in 1988 to 1994, as each year is projected to have the same number (i.e., 15) of launches. In each of these tables, the average monthly generation is equal to the annual quantity divided by 12 months.

The hazardous wastes shown in Tables 9 through 12 are listed in the same order as they appear in Table 8. In these tables, only mass values are listed, and a missing number indicates an identified waste for which insufficient information was available to estimate quantities. Subtotals are presented for each category, and each year is totalled by station set.

A summary of the generation of hazardous wastes for the entire STS program is given in Table 13. Mass quantities of these wastes are presented alphabetically by category code for each station set. Both baseline and contingency quantities (monthly and annual) are given per station set. Subtotals for each station set are then added together, resulting in the total quantity of hazardous wastes generated by the STS program for the period 1985 through 1994. In addition, total quantities of all hazardous wastes are given for each category code.

TABLE 7. HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB. PAGE 1

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.		HAZ.PROP.[2] EPA /CAL.		CAL. COMP. CLASS
0[3]	SO	CONTAMINATED FREON	L	WASHING OF SCAPESUITS	F002	NL[4]	T	T	6B
17	EW	WASTEWATER FROM EEW&S	L	RINSE OF SCAPESUITS & EMERGNCY	P068	NL	H	TI	3A
17	FO	DIESEL FUEL	L	POWERING OF COOLING TRAILER	D001	NL	i	F	6B
17	FO	DIESEL FUEL & OIL	L	TOWING OF ORBITER BY TRACTOR	D001	NL	i	F	6B
17	FS	CONTAMINATED DILUTION WATER	L	EMERGENCY DILUTION OF LEAKS	P068	502	CH	TI	1A,3A,4A
		MMH			P068	502			
17	OS	CONTAMINATED DILUTION WATER	L	EMERGENCY DILUTION OF LEAKS	P080	548	H	T	3A,6A
		N204			P080	548			
18	HF	HYDRAULIC FLUIDS	L	REPLACEMENT OF HYDRAULIC FLUID	D001	NL	iT	TIF	6B
19	AW	TPS ADHESIVE, RTV 566/577	S	TILE REPAIR	D001	NL	i	F	6B
		PHENYL METHYL POLYSILOXANE			D001	NL			
		TIN OXIDE			NL	NL			
		IRON OXIDE			NL	NL			
		SILICON			NL	NL			
		HARDENER							
19	AW	EA 911 EPOXY	L	TILE BONDING TO ORBITER	D000	NL	T	IT	6B
		EPOXY			NL	NL			
		ZINC CHROMATE			NL	NL			
		ASBESTOS			U013	75			
		MERCAPTAN			NL	NL			
		DIMETHYLAMINE			U092	281			
19	AW	EA 934 EPOXY	L	TILE BONDING TO ORBITER	D000	NL	T	T	6B
		EPOXY RESIN			NL	NL			
		ASBESTOS			U013	75			
19	AW	EA 9309 EPOXY	L	TILE BONDING TO ORBITER	D000	NL	T	T	6B
		EPOXY RESIN			NL	NL			
		GLASS FIBERS			NL	NL			
		ACRYLONITRILE/BUTADIEN/STYRENE			NL	NL			
		ASBESTOS			U013	75			
		POLYGLYCOL DIAMINE			NL	NL			
		SILANE			NL	NL			
19	CN	SPRAYCANS OF TPS SEALER	S	REWATERPROOFING OF ORBITER	D003	NL	R	P	1B
		FLUORINATED SOLVENT			F002	NL			
		FREON 113			F002	NL			
19	CN	KOROPON PRIMER CONTAM CANS	S	ORBITER TPS CAVITY PREPARATION	NL	NL			6B
		BUTYL ACETATE			NL	136			
		METHYL ETHYL KETONE			U159	499			

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB. PAGE 2

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.		HAZ.PROP.[2] EPA	/CAL.	CAL. COMP. CLASS
		TOLUENE			U220	738			
		TALC - Mg SILICATES			NL[4]	NL			
		EPOXY RESIN			NL	NL			
19	CN	LACQUER SPRAY CANS	S	TRACER PATTERN FABRICATION	NL	NL			6B
		PIGMENT SOLIDS			NL	NL			
		VEHICLE SOLIDS			NL	NL			
		TOLUENE			U220	738			
		XYLENE			U239	776			
		HYDROCARBON PROPELLANT			NL	NL			
		PETROLEUM DISTILLATES			NL	NL			
19	CN	ISP CONTAM CUPS & WOOD STICKS	S	TRACER PATTERN FABRICATION	NL	NL	i	F	6B
		INSTANT SET POLYMER			NL	NL			
19	CN	MARSHALL STENCIL INK SPRAYCANS	S	REFINISH ORBITER TILE SURFACES	NL	NL			6B
		XYLENE			U239	776			
		NAPTHA			D001	NL			
		OTHER MATERIALS			NL	NL			
19	CN	LACQUER SPRAYCANS	S	REFINISH ORBITER TILE SURFACES	NL	NL			6B
		PIGMENT SOLIDS			NL	NL			
		VEHICLE SOLIDS			NL	NL			
		TOLUENE			U220	738			
		XYLENE			U239	776			
		HYDROCARBON PROPELLANT			NL	NL			
		PETROLEUM DISTILLATES			NL	NL			
19	CN	ENAMEL SPRAYCANS	S	REFINISH ORBITER TILE SURFACES	NL	NL			6B
19	CN	ZINC CHROMATE PRIMER CANS	S	REFINISH ORBITER TILE SURFACES	NL	NL			6B
19	CN	CONTAMINATED TARE CUPS	S	TILE BONDING TO ORBITER	NL	NL			6B
		EA 911 EPOXY			D000	NL			
		EA 934 EPOXY			D000	NL			
		EA 9309 EPOXY			D000	NL			
19	CR	RAGS WITH SOLVENTS, GREASES	S	GENERAL CLEANING	D001	NL	i	F	6B
19	CR	SOLVENT-CONTAM CHEESECLOTH	S	ORBITER TPS CAVITY PREPARATION	D001	NL	iT	FT	6B
		ISOPROPYL ALCOHOL			D001	396			
		METHYL ETHYL KETONE			U159	499			
		1,1,1-TRICHLOROETHANE			F002	NL			
19	CR	MEK & IPA CONTAM CHEESECLOTH	S	CHUCK FABRICATION FOR ORB TILE	D001	NL	iT	TF	6B
		METHYL ETHYL KETONE			U159	499			
		ISOPROPYL ALCOHOL			D001	396			
19	CR	IPA CONTAMINATED CHEESECLOTH	S	DENSIFICATION OF ORBITER TILES	D001	396	iT	FT	6B
		ISOPROPYL ALCOHOL			D001	396			

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB.

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.	HAZ.PROP.[2] EPA /CAL.	CAL. COMP. CLASS
19	CR	TCE CONTAMINATED CHEESECLOTH 1,1,1-TRICHLOROETHANE	S	TILE REPAIR ON ORBITER	D001 NL[4] D001 NL	iT TF	6B
19	CR	MEK CONTAMINATED CHEESECLOTH METHYL ETHYL KETONE	S	ORBITER TILE REPAIR	D001 499 U159 499	iT TF	6B
19	CR	IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL	S	ORBITER TILE REPAIR	D001 396 NL 396	iT TF	6B
19	CR	SOLID FILM LUBRIC CONT CHSCLTH	S	TRACER PATTERN FABRICATION	D001 NL	i F	6B
19	CR	IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL	S	BOND TILE TO STRAIN ISOL PAD	D001 396	iT FT	6B
19	CR	DICHLOROMETHANE CONT CHSECLTH	S	PRESSURE PAD CLEANING	U080 262	iT FT	6B
19	CR	CONTAM CLOTHES, CLOTH & DEBRIS KOROPON BASE PRIMER KOROPON ACTIVATOR BERYLLIUM DUST	S	SANDING OF ET DOORS	NL NL F017 NL F017 NL P015 112	T TI	6B
19	EW	WASTEWATER FROM EEW&S	L	RINSE OF SCAPESUITS & EMERGNCY	P068 NL	H T	3A,4A
19	FS	WASTEWATER FROM PAYLOAD/ORB MMH	L	RTN SPILLS-HOSE CONNECTIONS	D002 NL P068 502	CH TI	1A,3A,4A
19	FS	WASTE FUEL AND PRIMOL 355[5] HYDRAZINE MMH	L	FUEL SPILL WASHDOWN SUMP	D002 NL U133 376 P068 502	CH TI	3A
19	HF	VACUUM PUMP OIL TEXACO REGAL OIL 068	L	DENSIFICATION OF ORBITER TILES	D001 NL	i F	6B
19	HS	FUEL SCRUBBER HYDRAZINE MMH	L	REMOVAL OF FUEL VAPORS	D002 NL U133 376 P068 502	CH TI	1A,3A,4A
19	HY	HYDRAZINE	L	DRAIN PAYLOADS	U133 376	RT TIF	6B
19	HY	HYDRAZINE	L	DRAIN 3 APU's	U133 376	RT TIF	6B
19	IN	POLYURETHANE FOAM	S	TILE REPAIR	D001 NL	i F	6B
19	IN	ALUMACAST A/B MIXTURE POLYOXPROPLENE PENTAERYTHRITOL AROMATIC WHITE OIL INERT ALUMINIZED PARTICLES DIPHENYLMETHANE DIISOCYANATE POLYMERS OF DPM DIISOCYANATE	L	CHUCK FABRICATION FOR ORB TILE	D001 NL NL NL D001 NL NL NL NL NL NL NL		

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB.

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.		HAZ.PROP.[2] EPA /CAL.		CAL. COMP. CLASS
19	IN	INSTANT SET POLYMER SCRAPS (PHENYL METHANE DIISOCYANATE POLY(OXALKYLENE)POLYETHER AROMATIC HYDROCARBONS	S	TRACER PATTERN FABRICATION	D001 NL NL D001	NL[4] NL NL NL	i	F	6B
19	IN	SILANE/ACETIC ACID RESIDUE METHYL TRIMETHOXYSILANE ACETIC ACID	S	INITIAL WATERPROOFING OF TILE	D003 NL NL	2 NL 2	CT	CT	1A
19	MH	MONOMETHYL HYDRAZINE	L	DRAIN-PURGE APS MANIFOLD & LHS	P068	502	H	TF	6B
19	MH	MONOMETHYL HYDRAZINE	L	DRAIN-PURGE FRCS MANIFLD & LHS	P068	502	H	TF	6B
19	MH	MONOMETHYL HYDRAZINE[6]	L	DRAIN LAPS FUEL	P068	502	H	TF	6B
19	MH	MONOMETHYL HYDRAZINE[6]	L	DRAIN RAPS FUEL	P068	502	H	TF	6B
19	MH	MONOMETHYL HYDRAZINE[6]	L	DRAIN FRCS FUEL	P068	502	H	TF	6B
19	MH	MONOMETHYL HYDRAZINE[6]	L	DRAIN PBK FUEL	P068	502	H	TF	6B
19	NH	WASTEWATER WITH AMMONIA	L	AMMONIA BOILER SERVICING	D002	34	C	TCI	1A
19	NO	NITROGEN TETROXIDE	L	DRAIN-PURGE PBK MANIFOLDS	P080	548	H	TF	6A
19	NO	NITROGEN TETROXIDE	L	DRAIN-PURGE APS, FRCS MANIFOLD	P080	548	H	TF	6A
19	NO	NITROGEN TETROXIDE	L	DRAIN LAPS OXIDIZER	P080	548	H	TF	6A
19	NO	NITROGEN TETROXIDE	L	DRAIN RAPS OXIDIZER	P080	548	H	TF	6A
19	NO	NITROGEN TETROXIDE	L	DRAIN FRCS OXIDIZER	P080	548	H	TF	6A
19	NO	NITROGEN TETROXIDE	L	DRAIN PBK OXIDIZER	P080	548	H	TF	6A
19	NO	NITROGEN TETROXIDE	L	DRAIN PAYLOADS OXIDIZER	P080	548	H	TF	6A
19	OS	DECONTAMINATE FROM PAYLOAD/ORB N204	L	RTN SPILLS-HOSE CONNECTIONS	P080 P080	NL 548	H	TF	3A,6A
19	OS	WASTE OXIDIZER AND PRIMOL 355[5] N204	L	OXIDIZER SPILL WASHDOWN SUMP	P080 P080	NL 548	H	T	3A
19	PA	KOROPON PRMER CONT PNT BRUSHES BUTYL ACETATE TALC - Mg SILICATES EPOXY RESIN	S	ORBITER TPS CAVITY PREPARATION	F017 NL NL NL	NL 136 NL NL	i	F	6B
19	PA	LACQUER #6[illegible]6486	L	ORBITER TILE REPAIR	D001	NL	i	F	6B

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB.

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.	HAZ.PROP[2] EPA	/CAL.	CAL. COMP. CLASS
19	PA	CONTAMINATED BRUSHES	S	REFINISH ORBITER TILE SURFACES	F017 NL[4]	TE	T	6B
		ORGANIC ZINC PRIMER			NL NL			
		ZINC CHROMATE PRIMER			D007 NL			
19	PA	ORGANIC ZINC PRIMER	L	REFINISH ORBITER TILE SURFACES	F017 NL	iT	TF	6B
		ZINC DUST			NL 777			
		BARYTES			NL NL			
		MOLYBDATE ORANGE			NL 519			
		SILICA			NL NL			
		HIGH MOLECULAR WEIGHT EPOXY			NL NL			
		CELLOSOLVE ACETATE			D001 NL			
		TOLUENE			U220 738			
		METHYL ETHYL KETONE			U159 499			
19	PA	CONTAMINATED PAINT BRUSHES	S	TILE BONDING TO ORBITER	F017 NL	iT	TFI	6B
		EA 911 EPOXY			F017 NL			
		EA 934 EPOXY			F017 NL			
		EA 9309 EPOXY			F017 NL			
19	SO	DOPE & LACQUER THINNER	L	ORBITER TILE REPAIR	D001 523	iT	TF	4A
		ALIPHATIC NAPTHA			NL 523			
		ESTER OR KETONE			F005 NL			
		ISO- OR n-BUTYL ACETATE			NL 136			
		ISO- OR n-BUTYL ALCOHOL			F003 137			
19	SW	WASHWATER WITH MEK	L	SURFACE PREP FOR TILE REPAIR	U159 NL	iT	TF	3A
		METHYL ETHYL KETONE			U159 499			
21	EW	WASTEWATER FROM EEW&S	L	RINSE OF SCAPESUITS & EMERGNCY	P068 NL	H	T	3A,4A
21	FS	WASTEWATER WITH MMH	L	ROUTINE SPILLS CLEANUP	D002 NL	CH	TI	1A,3A,4A
		MMH			P068 502			
21	HS	FUEL SCRUBBER	L	REMOVAL OF FUEL VAPORS	D002 NL	CH	TI	1A,3A,4A
		MMH			P068 502			
21	IN	TILE REPAIR FOAM	S	TILE REPAIR	D001 NL	i	F	6B
		POLYURETHANE			D001 NL			
21	MH	MONOMETHYL HYDRAZINE	L	AQUISITION SCREEN TEST	P068 502	H	TF	6B
21	NO	NITROGEN TETROXIDE	L	AQUISITION SCREEN TEST	P080 548	H	TF	6A
21	NO	NITROGEN TETROXIDE	L	PBK LOAD/OFF LOAD	P080 548	H	TF	6A
21	NO	NITROGEN TETROXIDE	L	RSV/TANK BLOWDOWN	P080 548	H	TF	6A
21	NO	NITROGEN TETROXIDE	L	PBK LOAD/OFFLOAD SPILL	P080 548	H	TF	6A
21	OS	WASTEWATER WITH OXIDIZER	L	DECONTAMINATE MIXTURES RTN SPL	P080 NL	H	TF	3A,6A

(CONT.)

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB.

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.	HAZ.PROP.[2] EPA	/CAL.	CAL. COMP. CLASS
		N2O4			P080 548			
21	SW	WASTEWATER WITH MEK METHYL ETHYL KETONE	L	TILE REPAIR	U159 NL[4] U159 499	IT	TF	3A
21	WP	WASTE SEALS, FILTERS, ETC.	S	EQUIPMENT MAINTENANCE	D001 NL	I	F	6B
23	EW	WASTEWATER FROM ZEW&S	L	RINSE OF SCAPESUITS & EMERGNCY	P068 NL	CH	TI	3A,4A
23	FS	HYDRAZINE-CONTAM. WASTEWATER HYDRAZINE	L	WASHDOWN OF EXPECTED N2H4 SPL	U133 376 U133 376	RT	TIF	6B
23	FS	HYDRAZINE-CONTAM. CLNUP WATER HYDRAZINE	L	FINAL CLEANUP OF LAUNCH MOUNT	U133 376 U133 376	RT	TIF	6B
23	FS	WASTEWATER FROM PPR HYDRAZINE	L	WASHDOWN OF PPR SPILLS	U133 376 U133 376	RT	TIF	6B
23	FS	PRIMOL 355[5] HYDRAZINE MMH	L	COVERS OXID. & FUEL SPILLS	D002 NL U133 376 P068 502	CH	TI	3A
23	HF	HYDRAULIC FLUIDS TETRAORTHOCRESOL PHOSPHATE	L	MAINT. OF HYDRAULIC DEVICES	D001 NL D001 NL	TI	TIF	6B
23	HS	HYDRAZINE & MMH SCRUBBER HYDRAZINE MMH	L	RECOVERY OF HYDRAZINE VAPOR	D002 NL U133 376 P068 502	CH	TI	1A,2A,4A
23	HY	HYDRAZINE	L	FILL SRB TVC APUs & ORB TANK	U133 376	RT	TIF	6B
23	HY	LBM PROPELLANT PARAHYDRAZINE UNSYM DIMETHYLHYDRAZINE	L	CONTINGENCY FUEL OFFLOAD AT LP	U133 376 U133 376 U098 285	RT	TIF	6B
23	HY	HYDRAZINE	L	CONTINGENCY FUEL OFFLOAD AT LP	U133 376	RT	TIF	6B
23	IN	K5NA INSULATION BUTYL GLYCIDYL ETHER EPOXY RESINS, UNCURED	S	CLOSEOUT OF SRBs	D001 NL D001 NL D001 NL	IT	TF	6B
23	MH	MONOMETHYL HYDRAZINE	L	FUELING OF ORBITER	P068 502	H	TF	6B
23	MH	MONOMETHYL HYDRAZINE	L	CONTINGENCY FUEL OFFLOAD AT LP	P068 502	H	TF	6B
23	NH	AMMONIA	L	CONTINGENCY OFFLOAD AT LP	D002 34	C	TCI	1A
23	NO	NITROGEN TETROXIDE	L	LOADING OF ORBITER OXIDIZER	P080 548	H	TF	6A
23	NO	LBM OXIDIZER (CONT.)	L	CONTINGENCY OFFLOAD AT LP	P080 548	H	TF	6A

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB.

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.	HAZ.PROP.[2] EPA	/CAL.	CAL. COMP. CLASS
		NITROGEN TETROXIDE			P080 548			
23	NO	NITROGEN TETROXIDE	L	CONTINGENCY OFFLOAD AT LP	P080 548	H	TF	6A
23	OS	N204 CONTAM. CLEANUP WATER NITROGEN TETROXIDE	L	FINAL CLEANUP OF LAUNCH MOUNT	P080 548 P080 548	H	TF	3A,6A
23	OS	N204 CONTAM. WASTEWATER NITROGEN TETROXIDE	L	WASHDOWN OF EXPECTED N204 SPL	P080 548 P080 548	H	TF	3A,6A
23	OS	PRIMOL 355 N204	L	N204 SPILL CLEANUP	P080 NL[4] P080 548	H	T	3A
23	PS	SRB PROPELLANT SPILL[7] AMMONIUM PERCHLORATE ALUMINUM POWDER PBAN BINDER HTPB BINDER IRON OXIDE	S	ACCIDENT INVOLVING 1 SRB	D003 37 D003 37 D003 22 NL NL NL NL NL NL	iTR	TPF	2A,6A
23	QW	DELUGE WATER ALUMINUM OXIDE AMMONIA HYDROCHLORIC ACID ORGANIC CARBON	L	ACOUSTIC DAMPING/COOLING OF LP	D002 NL NL NL NL NL D002 381 NL NL	C	C	3A
23	SO	SOLVENT MIXTURE FREON TMC/MF/TF SYM. TETRACHLOROETHANE	L	CLEANUP OF PCR & PPR	D001 262 F002 262 F002 715	Ti	TIF	4A
23	SO	CONTAMINATED SOLVENTS	L	CLEANUP PROT COATING SPRAY EQU	D001 NL	iT	TIF	6B
23	SW	SOLVENT WASTEWATER UNSPEC.	L	CLEANUP OF PCR & PPR	D001 NL	CT	TC	6B
23	SW	CONTAMINATED WASTEWATER SOLVENTS CHLORINATED RUBBER ZINC PRIMER	L	REFURBISHMENT OF LP PROT COAT	D001 NL D001 NL NL NL NL NL	iT	TF	6B
31	AL	SURFACTANT NaOH SODIUM TRIPOLYPHOSPHATE	L	SMALL PIPE CLEANING	D002 677 677	C	TI	1A
31	AW	EA 934 EPOXY ADHESIVE EPOXY RESIN ASBESTOS FILLERS POLYAMIDE DIETHYLENETRIAMINE	S	BUILDUP OF SRB FOR CORK APPL.	D001 NL D001 NL U013 75 NL NL NL NL NL 273	iT	TIF	6B
31	CA	CONTAMINATED AIR FILTERS	S	FILTERING OF SPRAY BOOTH AIR	F005 NL	iT	TF	6B

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB.

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA	HAZ.WST.NO. CAL.	HAZ.PROP.[2] EPA	HAZ.PROP.[2] CAL.	CAL. COMP. CLASS
31	CA	CHARCOAL FILTER WASTES	S	FILTERING OF CURE ROOM AIR	F005	NL[4]	Ti	TF	6B
31	CA	CONTAMINATED AIR FILTERS	S	FILTERS ON ALL EXHAUST STACKS	D001	NL	i	F	6B
31	CN	BOSTIK PRIMER PAINT CANS	S	SRB PAINTING	NL	NL			6B
31	CN	BOSTIK TOPCOAT PAINT CANS	S	SRB PAINTING	NL	NL			6B
31	CN	RUSTOLEUM PRIMER PAINT CANS	S	SRB FWD SKT RINGS PAINTING	NL	NL			6B
31	CN	RUSTOLEUM TOPCOAT PAINT CANS	S	SRB FWD SKT RINGS PAINTING	NL	NL			6B
31	CN	MSA-1 EMPTY CONTAINERS	S	SRB INSULATION	NL	NL			6B
31	CN	K5NA CONTAINERS	S	K5NA CLOSEOUTS	NL	NL			6B
31	CN	K5NA & MTA-2 PACKING MATERIALS	S	CONTAINERS OF INSUL FOR SRBs	D001	NL	Ti	IT	6B
31	CR	SOLVENT CONTAMINATED RAGS	S	CLEANING SRB WITH SOLVENTS	D001	NL	i	F	6B
31	CR	ALODINE CONTAMINATED RAGS	S	APPLICATION OF ALODINE TO SRB	D007	NL	E	T	6B
31	CR	RYMPLE CLOTHS	S	DEGREASING	F001	NL	Ti	TF	6B
31	CR	PAINT DROP CLOTHS	S	PROT OF FLOOR DURING PAINTING	F017	NL	Ti	IT	6B
31	EW	WASTEWATER FROM EEW&S	L	RINSE OF SCAPESUITS & EMERGNCY	F017	NL	T	T	3A
31	FO	FUEL AND OIL SPILLS	L	RAIL TRANSPORT OF SRB	D001	NL	i	F	6B
31	FO	FUEL & OIL WASTES	L	WASTES FROM IN-BUILDING OPS.	D001	NL	i	F	6B
31	FS	PRIMOL 355[5]	L	HYDRAZINE SPILL CLEAN-UP	D002	376	CR	TI	6B
31	HS	SCRUBBER EFFLUENT	L	TVC HOT FIRE AREA SCRUBBER	D002	376	TC	TI	1A,3A
31	HY	HYDRAZINE	L	SERVICING OF TVC APU	U133	376	RT	TIF	6B
31	IN	MSA-1 (CURED)[8] EPICHLORHYDRIN/BGE GLASS ECOSPHERES PHENOLIC MICROSPHERES GLASS FIBERS BENTONE 27 METHYLENE DIANILINE m-PHENYLENE DIAMINE	S	SRB INSULATION	D001 D003 NL NL NL NL D001 NL	NL NL NL NL NL NL NL NL	iT	TF	6B
31	IN	MSA-1, PART A (UNMIXED)[9] METHYLENE CHLORIDE (CONT.)	L	SRB INSULATION	F002 F002	262 262	Ti	TF	6B

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB. PAGE 9

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.		HAZ.PROP.[2] EPA	/CAL.	CAL. COMP. CLASS
		EPICHLORHYDRIN/BGE			D003	NL[4]			
31	IN	MSA-1, PART B (UNMIXED)[9]	L	SRB INSULATION	U210	576	Ti	TF	6B
		METHYLENE CHLORIDE			F002	262			
		PERCHLOROETHYLENE			U210	576			
		METHYLENE DIANILINE			D001	NL			
		m-PHENYLENE DIAMINE			NL	NL			
		ETHYL ALCOHOL			D001	NL			
		PHENOLIC MICROSPHERES			NL	NL			
		GLASS ECOSPHERES			NL	NL			
		GLASS FIBERS			NL	NL			
		BENTONE 27			NL	NL			
31	IN	MTA-2 (CURED)[8]	S	SRB INSULATION	D001	NL	iT	TF	6B
		EPICHLORHYDRIN/BGE			D003	NL			
		LP-3, POLYSULFIDE LIQ POLYMER			D001	NL			
		MDA & mPDA			D003	NL			
		STANNOUS OCTOATE			NL	NL			
		PHENOLIC MICROSPHERES			NL	NL			
31	IN	MTA-2 (UNMIXED)[9]	L	SRB INSULATION	D001	262	iT	TF	6B
		EPICHLORHYDRIN/BGE			D003	NL			
		LP-3, POLYSULFIDE LIQ POLYMER			D001	NL			
		MDA & mPDA			D003	NL			
		STANNOUS OCTOATE			NL	NL			
		PHENOLIC MICROSPHERES			NL	NL			
		METHYLENE CHLORIDE			F002	262			
		PERCHLOROETHYLENE			U210	576			
31	IN	K5HA	S	CLOSEOUT OF SRB AFT SKT & SRM	D001	NL	iT	TIF	6B
		BUTYL GLYCIDYL ETHER			D001	NL			
		EPOXY RESINS			D001	NL			
31	IN	INSULATION AND PAPER	S	PROT OF FLOOR DURING INSUL	D001	NL	iT	TF	6B
31	PA	BOSTIK EPOXY PRIMER	L	SRB PAINTING	F017	NL	iT	TIF	6B
		EPOXY RESIN			D003	NL			
		AMINE CURING AGENT			NL	NL			
		TITANIUM DIOXIDE			NL	NL			
		CHROMATE PIGMENTS			D007	202			
		INERT PIGMENTS			NL	NL			
		SUSPENSION & FLOW CONTROL ADDI			NL	NL			
		SOLVENTS			F003	NL			
31	PA	BOSTIK EPOXY TOPCOAT	L	SRB PAINTING	F017	NL	iT	TIF	6B
		EPICHLORHYDRIN/BISPHENOL A			D001	NL			
		AMINE CURING AGENT			NL	NL			
		COLOR PIGMENT			NL	NL			
		SUSPENSION & FLOW CONTROL ADDI			NL	NL			
		SOLVENTS PHOTOCHEM REACTIVE			F003	NL			
		(CONT.)							

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB.

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.		HAZ.PROF.[2] EPA	/CAL.	CAL. COMP. CLASS
		SOLVENTS NONPHOTOCHEM REACTIVE			F005	NL[4]			
31	PA	RUSTOLEUM PRIMER	L	SRB FWD SKIRT RINGS PAINTING	F017	NL	i	F	6B
		SILICATES			NL	NL			
		YELLOW IRON OXIDE			NL	NL			
		TITANIUM DIOXIDE			NL	NL			
		CALCIUM BOROSILICATE			NL	NL			
		BENTONITE			NL	NL			
		LINSEED PHENOLIC ALKYL RESIN			NL	NL			
		ALIPHATIC HYDROCARBONS			D001	NL			
		DRIERS AND ADDITIVES			NL	NL			
31	PA	RUSTOLEUM TOPCOAT	L	SRB FWD SKIRT RINGS PAINTING	F017	NL	i	F	6B
		SILICATES			NL	NL			
		TITANIUM DIOXIDE			NL	NL			
		BENTONITE CLAY			NL	NL			
		TINTING COLORS			NL	NL			
		ALKYL RESIN			NL	NL			
		ALIPHATIC HYDROCARBONS			D001	NL			
		DRIERS & ADDOTIVES			NL	NL			
31	PA	GACOFLEX	L	SRB PAINTING	F017	NL	T	TFI	6B
		TITANIUM DIOXIDE			NL	NL			
		CLAY			NL	NL			
		HYPALON			NL	NL			
		HYDROCARBON RESIN			NL	NL			
		PERCHLOROETHYLENE			U210	576			
		1,1,1-TRICHLOROETHANE			F002	NL			
		EPOXIDIZED SOYBEAN OIL			NL	NL			
31	PA	PAINT-SPILL ABSORBANT	L	CLEAN-UP OF PAINT SPILLS	F017	NL	T	T	6B
31	PW	ALODINE CONTAMINATED WASTEWATR	L	RINSE OF CONTAMINATED RAGS	D007	NL	EH	TCS	1B,3A,6A
		CHROMIC ACID			D007	198			
		FERRICYANIDE SALT			P055	233			
		COMPLEX FLUORIDE SALT			D002	345			
31	SO	PERCHLOROETHYLENE	L	SURFACE CLEANING FOR K5NA	U210	576	T	TI	6B
31	SO	TRICHLOROETHANE	L	SURFACE CLEANING FOR K5NA	F002	743	T	TI	6B
31	SO	FREON 113	L	SURFACE CLEANING FOR K5NA	F002	NL	T	T	6B
31	SO	MSA-1 CONTAMINATED MECl	L	MSA-1 EQUIPMENT CLEANUP	F002	262	T	T	4A
31	SO	MSA-1 CONTAM PERCHLOROETHYLENE	L	MSA-1 EQUIPMENT CLEANUP	F002	576	T	T	4A
31	SO	PERCHLOROETHYLENE	L	PARTS CLEANING ROOM OPERATIONS	F002	576	T	T	4A
31	SO	TRICHLOROETHANE	L	PARTS CLEANING ROOM OPERATIONS	F002	743	T	T	4A

TABLE 7 (CONT) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB. PAGE 11

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.		HAZ.PROP.[2] EPA /CAL.		CAL. COMP. CLASS
31	SO	METHYLENE CHLORIDE	L	PARTS CLEANING ROOM OPERATIONS	F002	262	T	T	4A
31	SO	MTA-2 CONTAMINATED SOLVENTS	L	MTA-2 MIXING TANK CLEANUP	F005	499	Ti	TF	6B
31	SO	BOSTIK CONTAMINATED SOLVENTS	L	BOSTIK EQUIPMENT CLEANUP	U159	499	iT	TF	6B
31	SO	RUSTOLEUM CONTAMINATED SOLVENT	L	RUSTOLEUM EQUIPMENT CLEANUP	U159	499	iT	TF	6B
32	BA	LITHIUM STORAGE BATTERIES	S	SAFING OF SRB DESTRUCT ORD	D002	705	C	TC	1B,3B,6B
32	BA	SILVER-ZINC STORAGE BATTERIES	S	SAFING OF SRB DESTRUCT ORD	D011	705	E	TC	1A,6B
32	BA	POTASSIUM HYDROXIDE SOLUTION	L	DRAINAGE OF AG-ZN BATTERIES	D002	621	C	TC	1A,3B
32	CB	HYDRAZINE-CONTAMINATED WATER	L	FLUSHING OF AFT SKT CAT BED	D002	NL[4]	C	TI	3A
32	CS	CONTAMINATED SEAWATER[10]	L	PARTIAL ONDECK PUMP OUT OF SRB	NL	NL			3A
32	CS	CONTAMINATED SEAWATER[10]	L	DRAINAGE OF SRB INTERIOR	NL	NL			3A
32	CW	SRB FWD SKT CLEANING WASTES	L	CLEANING OF FWD SKT TP CAVITY	NL	NL			
32	EW	WASTEWATER FROM EEW&S	L	RINSE OF SCAPESUITS & EMERGNCY	P068	NL	CH	TI	3A,4A
32	FO	BILGE WASTES	L	BOAT RETRIEVAL OF SPENT SRBs	D001	NL	i	TF	6B
32	FO	DIESEL FUEL & OIL SPILLS	L	TRANSPORT BY TRACTOR OF SRBs	D001	NL	i	F	6B
32	FS	WASTE FUEL & PRIMOL 355[5] HYDRAZINE	L	FUEL SPILL WASHDOWN SUMP	D002 U133	NL 376	C	CTI	3A
32	HS	HYDRAZINE SCRUBBER EFFLUENT HYDRAZINE	L	DRAINAGE OF TVC APUs ON SRBs	D002 U133	NL 376	C	TI	3A
32	HY	HYDRAZINE	L	DRAINAGE OF TVC APUs ON SRBs	U133	376	RT	TIF	6B
32	IN	INSULATION WASTES, SOLID MSA-1 INSULATION MTA-2 INSULATION K5NA INSULATION PR-855 INSULATION	S	STRIPPING OFF SRB INSULATION	D001 D001 D001 D001 D001	NL NL NL NL NL	i	F	6B
32	IN	INSULATION CONTAM FILTERS	S	FILTER HIGH PRES WATER SPRAY	D001	NL			6B
32	IW	INSULATION-CONTAMINATED WATER MSA-1 INSULATION MTA-2 INSULATION K5NA INSULATION PR-855 INSULATION	L	INSULATION STRIP W/WATER SPRAY	NL	NL			3A

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB.

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.		HAZ.PROP.[2] EPA	/CAL.	CAL. COMP. CLASS
32	PR	PRESERVATIVE CHEMICALS	L	PROTECTION OF SRB SEG JOINTS	D003	NL[4]	C	C	1A
		PROTECTIVE LUBRICANTS			D003	NL			
32	PS	SRB SOLID PROPELLANT	S	ACCID. SPILL OF RESIDUAL FUEL	D003	NL	R	F	6B
		AMMONIUM PERCHLORATE			D003	37			
		ALUMINUM POWDER			D003	22			
		FERRIC OXIDE			NL	NL			
		POLYMER & EPOXY RESIN			D003	NL			
32	SB	DETERGENT WASHWATER[11]	L	WASHING OF SRB COMPONENTS	NL	NL			3A
32	SB	POTABLE RINSE WATER	L	RINSING OF SRB COMPONENTS	NL	NL			3A
32	SB	DEIONIZED RINSE WATER	L	FINAL RINSE OF SRB COMPONENTS	NL	NL			3A
32	SI	SRB RINSE WATER	L	ONDECK RINSE OF SRB EXTERIOR	NL	NL			3A
32	SO	SOLVENTS	L	PREPARATION OF SRB SEG JOINTS	D001	262	I	IF	6B
		FREON TMC/TM			D002	262			
		SOLVENTS, UNSPECIFIED			D001	NL			6B
33	CA	AIR FILTERS	S	FILTERING PARTICULATES	D001	NL	I	F	6B
33	EW	WASTEWATER FROM EEW&S	L	EMERGENCY WASHWATER	D001	NL	T	T	6B
33	HF	HYDRAULIC FLUIDS	L	CHANGING HYDRAULIC FLUID	D001	NL	Ti	TIF	6B
99	AW	GX-6300 ABLATOR ADHESIVE	S	PREP FOR ABLATOR CLOSEOUTS	D001	366	IT	TF	6B
		RESIN STM L 663			NL	NL			
		RESIN STM L 664			NL	NL			
		SILICA POWDER			NL	NL			
		CARBON POWDER			NL	NL			
		CURING AGENT L 663			NL	NL			
		CURING AGENT L 664			NL	NL			
		HEPTANE			D001	366			
		XYLENE			U239	776			
99	AW	ISOCHEM POLYESTER RESIN ADHESV	S	PREP FOR SPRAY-ON FOAM CLOSE	D003	697	ITR	TFPI	6B
		STYRENE			D003	697			
		MEK PEROXIDE CATALYST			U160	500			
		DIMETHYL PHTHALATE			U102	NL			
99	CA	FILTER	S	FILTER PARTICULATE IN CLN AREA	D001	NL	I	F	6B
99	CN	SOLVENT CONTAMINATED CONTAINER	S	SURFACE PREP FOR ET CLOSEOUT	NL	NL			6B
		SOLVENTS[12]			D001	NL			
99	CN	PRIMER CONTAMINATED CONTAINERS	S	PRIMING FOR ET CLOSEOUTS	NL	NL			6B
99	CN	ADHESIVE CONTAMINATED CONTAINR	S	PREPARATION FOR ET CLOSEOUTS	NL	NL			6B

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB.

ST. SYT	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.		HAZ.PROP.[2] EPA /CAL.		CAL. COMP. CLASS
		SILICA MICROSPHERES			NL[4]	NL			
		PHENOLIC MICROSPHERES			NL	NL			
		CURING AGENT STN L664, PT B			NL	NL			
99	IN	POUR FOAM "TRIMMINGS"	S	FOAM TRIM BEFORE ADHES APPL	D001	NL	1	F	6B
		POLYURETHANE			D001	NL			
99	PA	EPOXY PRIMER	L	PRIMER FOR FOAM INSUL ET CLOSE	F017	NL	IT	TIF	6B
		METHYLENE ISOBUTYL KETONE			U161	504			
		XYLENE			U239	776			
		CYCLOHEXANONE			U057	NL			
		CHROMATES			D007	NL			
		INORGANIC PIGMENTS			NL	NL			
		N-BUTANOL			F003	137			
		TOLUENE			U220	738			
		AMINO SILANE			D001	NL			
		METHYL ETHYL KETONE			U159	499			
99	PA	D.C. 1200	L	PRIMER FOR [illegible] OR ET CLOSEOUT	F017	597	IT	TF	6B
		VM AND P NAPTHA			D001	597			
		ORGANOMETALLIC SALTS			NL	NL			
99	SO	FREON TMC	L	SURFACE PROP FOR ET CLOSEOUT	F002	262	T	T	6B
99	SO	1,1,1-TRICHLOROETHANE	L	SURFACE P[illegible] OR ET CLOSEOUT	F002	NL	TI	TF	6B
99	SO	MEK & CELLOSOLVE	L	SUBSTRATE [illegible] EQUIP CLEANUP	U159	499	IT	FT	6B
99	SO	HEPTANE	L	ABLATOR EQUIPMENT CLEANUP	D001	366	IT	TF	6B
99	SO	CELLOSOLVE ACETATE	L	FOAM ADHES & PRIMER EQUIP CLNP	D001	NL	IT	TF	6B
99	SO	METHYL ETHYL KETONE	L	FOAM ADHES & PRIMER EQUIP CLNP	U159	499	IT	TF	6B
99	SR	SOLVENT REDUCER	L	SURFACE PREP FOR ET CLOSEOUT	U159	499	IT	FT	6B
		METHYL ETHYL KETONE			U159	499			
		CYCLOHEXANONE			U057	NL			
99	SW	SOLVENT CONTAMINATED WATER	L	RINSING OF CONTAMINATED RAGS	F005	NL	T	T	3A,6B

TABLE 7 (CONT.) HAZARDOUS CHARACTERISTICS OF WASTES GENERATED BY THE SHUTTLE TRANSPORT SYSTEM AT VAFB.

STA SET	CAT[1]	WASTE MATERIAL	SOL OR LIQ	OPERATION	HAZ.WST.NO. EPA/CAL.		HAZ.PROP.[2] EPA /CAL.		CAL. COMP. CLASS
99	CN	SOLVENT CONTAINERS	S	EQUIPMENT CLEANUP	NL[4]	NL			
99	CN	POUR FOAM CONTAINERS	S	CONTAINERS FOR POLYOL & MDI	NL	NL			6B
99	CN	ABLATOR CONTAMINATED CONTAINER	S	ET HARD-PACKED ABLATOR CLOSE	NL	NL			6B
99	CR	SOLVENT CONTAMINATED RAGS	S	SURFACE PREP FOR ET CLOSEOUT	D001	NL	iT	TF	6B
99	CR	ADHESIVE CONTAMINATED RAGS	S	PREPARATION FOR ET CLOSEOUTS	D003	697	iTR	TFPI	6B
99	CR	EPOXY PRIMER-CONTAMINATED RAGS	S	APPL OF EPOXY PRIMER TO ET	D001	NL	iTE	FTI	6B
99	IN	BX-250 FOAM (SOFI)	S	ET SPRAY-ON FOAM CLOSEOUTS	D003	500	TiR	TFPI	6A
		DIPHENYL METHANE DIISOCYANATE			D001	NL			
		FREON 11			U229	NL			
		AMINES			NL	NL			
		POLYOLS			NL	NL			
		SUPER MEK PEROXIDE			U160	500			
		POLYESTER RESIN			NL	NL			
		DIMETHYL PHTHALATE			U102	NL			
99	IN	POUR FOAM (MIXED)[8]	S	ET POUR FOAM CLOSEOUT	D001	NL	i	F	6B
		POLYURETHANE			D001	NL			
99	IN	POUR FOAM PART A (UNMIXED)[9]	L	ET POUR FOAM CLOSEOUTS	D001	NL	i	F	6B
		DIPHENYL METHANE DIISOCYANATE			D001	NL			
		FREON 11			U229	NL			
		POLYOLS, AMINES			NL	NL			
99	IN	POUR FOAM PART B (UNMIXED)[9]	L	ET POUR FOAM CLOSEOUTS	D001	NL	i	F	6B
		FREON 11			U229	NL			
		AMINE CATALYST			NL	NL			
		POLYETHER POLYOL BLEND			NL	NL			
99	IN	POUR FOAM CONTAMINATED PAPER	S	ET POUR FOAM CLOSEOUTS	D001	NL	i	F	6B
99	IN	SUPER LIGHT ABLATOR (I)	S	ET HAND-PACKED ABLATOR CLOSE	D001	336	iT	FT	6B
		RESIN L664, PT A			NL	NL			
		SILICA FIBERS			NL	NL			
		CORK			NL	NL			
		PHENOLIC MICROSPHERES			NL	NL			
		SILICA MICROSPHERES			NL	NL			
		CURING AGENT			NL	NL			
99	IN	SUPER LIGHT ABLATOR (II)	S	HAND-PACKED ABLATOR CLOSEOUT	D001	366	iT	TF	6B
		RESIN STM L664, PT A			NL	NL			
		CARBON POWDER			NL	NL			
		SILICA FIBERS			NL	NL			
		CORK			NL	NL			
		(CONT.)							

FOOTNOTES

1. See Category Codes Glossary for definition of all abbreviations.
2. See Glossary for definitions of abbreviations.
3. Station Set Zero is used for wastes from the space shuttle launches which are generated at a place other than a designated station set (e.g., SCAPE suit cleaning facility).
4. NL = not listed.
5. Primol 355 is a high-viscosity mineral oil. Usage requires a design decision and Air Force approval. Either Primol 355, another oil, or a foam will be used to prevent vaporization of spilled hypergols.
6. This waste could be off-loaded either at Station Set V19 or V21. Station Set V19 has been arbitrarily chosen.
7. This contingency could occur either at Station Set V23 or V31. Station Set V23 has been arbitrarily chosen.
8. Insulation is mixed, but not used.
9. Insulation is unmixed, but with shelf life exceeded.
10. Nature of contaminants not determined.
11. Contains unidentified surfactants and/or detergents.
12. Solvents include Freon TMC, trichloroethane, methyl ethyl ketone, and cellosolve (4).

TABLE 8. UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF
STA. SET= 0[2] CAT=SO CONTAMINATED FREON	L	2376.8[3]	5240.0[3]	1514.0[3]	400.0[3]	.0	.0	.0	.0
SUBTOTAL FOR STA. SET 0									
SOLIDS		.0	.0	.0	.0				
LIQUIDS		2376.8	5240.0	1514.0	400.0				
SUBTOTAL		2376.8	5240.0						
STA. SET=17 CAT=EW WASTEWATER FROM EEW&S	L	2725.4[4]	6008.4[4]	2725.2[4]	720.0[4]				
STA. SET=17 CAT=FO DIESEL FUEL	L					.0	.0	.0	.0
STA. SET=17 CAT=FO DIESEL FUEL & OIL	L					.0	.0	.0	.0
STA. SET=17 CAT=FS CONTAMINATED DILUTION WATER	L	.0	.0	.0	.0				
MMH		.0	.0		.0				
STA. SET=17 CAT=OS CONTAMINATED DILUTION WATER	L	.0	.0	.0	.0				
N2O4		.0	.0		.0				
SUBTOTAL FOR STA. SET 17									
SOLIDS		.0	.0	.0	.0				
LIQUIDS		2725.4	6008.4	2725.2	720.0				
SUBTOTAL		2725.4	6008.4						
STA. SET=18 CAT=HF HYDRAULIC FLUIDS	L	4.3[5]	9.5[5]	9.5[5]	2.5[5]	.0	.0	.0	.0
SUBTOTAL FOR STA. SET 18									
SOLIDS		.0	.0	.0	.0				
LIQUIDS		4.3	9.5	9.5	2.5				
SUBTOTAL		4.3	9.5						
STA. SET=19 CAT=AW TPS ADHESIVE, RTV 566/577	S	1.1	2.5	8.5	.3	.0	.0	.0	.0
PHENYL METHYL POLYSILOXANE						.0	.0		.0
TIN OXIDE						.0	.0		.0
IRON OXIDE						.0	.0		.0
SILICON						.0	.0		.0
HARDENER						.0	.0		.0
STA. SET=19 CAT=AW EA 911 EPOXY (CONT.)	L					.0	.0	.0	.0

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
EPOXY						.0	.0		.0
ZINC CHROMATE						.0	.0		.0
ASBESTO						.0	.0		.0
MERCAPTAN						.0	.0		.0
DIMETHYLAMINE						.0	.0		.0
STA. SET=19 CAT=AW									
EA 934 EPOXY	L					.0	.0	.0	.0
EPOXY RESIN						.0	.0		.0
ASBESTOS						.0	.0		.0
STA. SET=19 CAT=AW									
EA 9309 EPOXY	L					.0	.0	.0	.0
EPOXY RESIN						.0	.0		.0
GLASS FIBERS						.0	.0		.0
ACRYLONITRILE/BUTADIEN/STYRENE						.0	.0		.0
ASBESTOS						.0	.0		.0
POLYGLYCOL DIAMINE						.0	.0		.0
SILANE						.0	.0		.0
STA. SET=19 CAT=CN									
SPRAYCANS OF TPS SEALER	S					.0	.0	.0	.0
FLUORINATED SOLVENT						.0	.0		.0
FREON 113						.0	.0		.0
STA. SET=19 CAT=CN									
KOROPON PRIMER CONTAM CANS	S	6.8[6]	15.0[6]	56.6	2.0	.0	.0	.0	.0
BUTYL ACETATE						.0	.0		.0
METHYL ETHYL KETONE						.0	.0		.0
TOLUENE						.0	.0		.0
TALC - Mg SILICATES						.0	.0		.0
EPOXY RESIN						.0	.0		.0
STA. SET=19 CAT=CN									
LACQUER SPRAY CANS	S	2.7[7]	6.0[7]	28.3	1.0	.0	.0	.0	.0
PIGMENT SOLIDS						.0	.0		.0
VEHICLE SOLIDS						.0	.0		.0
TOLUENE						.0	.0		.0
XYLENE						.0	.0		.0
HYDROCARBON PROPELLANT						.0	.0		.0
PETROLEUM DISTILLATES						.0	.0		.0
STA. SET=19 CAT=CN									
ISP CONTAM CUPS & WOOD STICKS	S	.7[8]	1.5[8]	14.2	.5	.0	.0	.0	.0
INSTANT SET POLYMER						.0	.0		.0
STA. SET=19 CAT=CN									
MARSHALL STENCIL INK SPRAYCANS	S	.3[7]	.6[7]	2.8	.1	.0	.0	.0	.0
XYLENE						.0	.0		.0
NAPTHA						.0	.0		.0

(CONT.)

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
OTHER MATERIALS						.0	.0		.0
STA. SET=19 CAT=CN									
LACQUER SPRAYCANS	S	2.2[7]	4.8[7]	22.7	.8	.0	.0	.0	.0
PIGMENT SOLIDS						.0	.0		.0
VEHICLE SOLIDS						.0	.0		.0
TOLUENE						.0	.0		.0
XYLENE						.0	.0		.0
HYDROCARBON PROPELLANT						.0	.0		.0
PETROLEUM DISTILLATES						.0	.0		.0
STA. SET=19 CAT=CN									
ENAMEL SPRAYCANS	S	4.1[7]	9.0[7]	42.5	1.5	.0	.0	.0	.0
STA. SET=19 CAT=CN									
ZINC CHROMATE PRIMER CANS	S	4.1[7]	9.0[7]	42.5	1.5	.0	.0	.0	.0
STA. SET=19 CAT=CN									
CONTAMINATED TARE CUPS	S					.0	.0	.0	.0
EA 911 EPOXY						.0	.0		.0
EA 934 EPOXY						.0	.0		.0
EA 9309 EPOXY						.0	.0		.0
STA. SET=19 CAT=CR									
RAGS WITH SOLVENTS, GREASES	S	4.5[9]	10.0[9]	56.6	2.0	.0	.0	.0	.0
STA. SET=19 CAT=CR									
SOLVENT-CONTAM CHEESECLOTH	S					.0	.0	.0	.0
ISOPROPYL ALCOHOL						.0	.0		.0
METHYL ETHYL KETONE						.0	.0		.0
1,1,1-TRICHLOROETHANE						.0	.0		.0
STA. SET=19 CAT=CR									
MEK & IPA CONTAM CHEESECLOTH	S					.0	.0	.0	.0
METHYL ETHYL KETONE						.0	.0		.0
ISOPROPYL ALCOHOL						.0	.0		.0
STA. SET=19 CAT=CR									
IPA CONTAMINATED CHEESECLOTH	S					.0	.0	.0	0
ISOPROPYL ALCOHOL						.0	.0		.0
STA. SET=19 CAT=CR									
TCE CONTAMINATED CHEESECLOTH	S					.0	.0	.0	.0
1,1,1-TRICHLOROETHANE						.0	.0		.0
STA. SET=19 CAT=CR									
MEK CONTAMINATED CHEESECLOTH	S					.0	.0	.0	.0
METHYL ETHYL KETONE						.0	.0		.0
STA. SET=19 CAT=CR									
IPA CONTAMINATED CHEESECLOTH	S					.0	.0	.0	.0
(CONT.)									

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
ISOPROPYL ALCOHOL						.0	.0		.0
STA. SET=19 CAT=CR SOLID FILM LUBRIC CONT CHSCLTH	S					.0	.0	.0	.0
STA. SET=19 CAT=CR IPA CONTAMINATED CHEESECLOTH	S					.0	.0	.0	.0
ISOPROPYL ALCOHOL						.0	.0		.0
STA. SET=19 CAT=CR DICHLOROMETHANE CONT CHSECLTH	S					.0	.0	.0	.0
STA. SET=19 CAT=CR CONTAM CLOTHES, CLOTH & DEBRIS	S	4.5[10]	10.0[10]	141.6	5.0	.0	.0	.0	.0
KOROPON BASE PRIMER						.0	.0		.0
KOROPON ACTIVATOR						.0	.0		.0
BERYLLIUM DUST						.0	.0		.0
STA. SET=19 CAT=EW WASTEWATER FROM EEW&S	L	3028.2[4]	6676.0[4]	3028.0[4]	800.0[4]				
STA. SET=19 CAT=FS WASTEWATER FROM PAYLOAD/ORB	L	544.3	1200.0	567.8	150.0	.0	.0	.0	.0
MMH		54.4	120.0		15.0	.0	.0		.0
STA. SET=19 CAT=FS WASTE FUEL AND PRIMOL 355[11]	L	36.3	80.0	37.8	10.0				
HYDRAZINE & MMH		1.8	4.0		.5				
STA. SET=19 CAT=HF VACUUM PUMP OIL	L	4.5	10.0	4.5	1.2	.0	.0	.0	.0
TEXACO REGAL OIL 068						.0	.0		.0
STA. SET=19 CAT=HS FUEL SCRUBBER	L	2540.1	5600.0	2649.5	700.0	.0	.0	.0	.0
HYDRAZINE & MMH		50.8	112.0		14.0	.0	.0		.0
						.0	.0		.0
STA. SET=19 CAT=HY HYDRAZINE	L	.0	.0	.0	.0	4989.5[12]	11000.0[12]	4969.7[12]	1313.0[12]
STA. SET=19 CAT=HY HYDRAZINE	L	68.0	150.0	68.1	18.0	68.0[12]	150.0[12]	68.1[12]	18.0[12]
STA. SET=19 CAT=IN POLYURETHANE FOAM	S	4.5	10.0	416.2	14.7	.0	.0	.0	.0
STA. SET=19 CAT=IN ALUMACAST A/B MIXTURE	L	.1	.3			.0	.0	.0	.0

(CONT.)

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
POLYOXPROPLENE PENTAERYTHRITOL						.0	.0		.0
AROMATIC WHITE OIL						.0	.0		.0
INERT ALUMINIZED PARTICLES						.0	.0		.0
DIPHENYLMETHANE DIISOCYANATE						.0	.0		.0
POLYMERS OF DPM DIISOCYANATE						.0	.0		.0
STA. SET=19 CAT=IH									
INSTANT SET POLYMER SCRAPS	S	1.8[13]	4.0[13]	22.7	.8	.0	.0	.0	.0
DIPHENYL METHANE DIISOCYANATE						.0	.0		.0
POLY(OXALKYLENE)POLYETHER						.0	.0		.0
AROMATIC HYDROCARBONS						.0	.0		.0
STA. SET=19 CAT=IH									
SILANE/ACETIC ACID RESIDUE	S	.5	1.0	5.7	.2	.0	.0	.0	.0
METHYL TRIMETHOXYSILANE						.0	.0		.0
ACETIC ACID						.0	.0		.0
STA. SET=19 CAT=MH									
MONOMETHYL HYDRAZINE	L	35.4	78.0	40.5	10.7	.0	.0	.0	.0
STA. SET=19 CAT=MH									
MONOMETHYL HYDRAZINE	L	9.1	20.0	10.2	2.7	.0	.0	.0	.0
STA. SET=19 CAT=MH									
MONOMETHYL HYDRAZINE[14]	L	18.8[15]	41.4[15]	21.6[15]	5.7[15]	214.5[12]	473.0[12]	246.0[12]	65.0[12]
STA. SET=19 CAT=MH									
MONOMETHYL HYDRAZINE[14]	L	18.8[15]	41.4[15]	21.6[15]	5.7[15]	296.6[12]	654.0[12]	340.6[12]	90.0[12]
STA. SET=19 CAT=MH									
MONOMETHYL HYDRAZINE[14]	L	13.3[15]	29.4[15]	15.1[15]	4.0[15]	365.6[12]	806.0[12]	416.3[12]	110.0[12]
STA. SET=19 CAT=MH									
MONOMETHYL HYDRAZINE[14]	L	41.6[15]	91.8[15]	47.7[15]	12.6[15]	.0	.0	.0	.0
STA. SET=19 CAT=WH									
WASTEWATER WITH AMMONIA	L	36.3[15]	80.0[15]	37.8[15]	10.0[15]	.0	.0	.0	.0
STA. SET=19 CAT=NO									
NITROGEN TETROXIDE	L	5.4	12.0	3.8	1.0	.0	.0	.0	.0
STA. SET=19 CAT=NO									
NITROGEN TETROXIDE	L	9.8	21.6	6.8	1.8	.0	.0	.0	.0
STA. SET=19 CAT=NO									
NITROGEN TETROXIDE	L	34.3[15]	75.6[15]	24.2[15]	6.4[15]	326.1[12]	719.0[12]	227.1[12]	60.0[12]
STA. SET=19 CAT=NO									
NITROGEN TETROXIDE	L	34.3[15]	75.6[15]	24.2[15]	6.4[15]	465.8[12]	1027.0[12]	325.5[12]	86.0[12]
STA. SET=19 CAT=NO									
NITROGEN TETROXIDE	L	23.9[15]	52.6[15]	16.7[15]	4.4[15]	572.4[12]	1262.0[12]	397.4[12]	105.0[12]

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
STA. SET=19 CAT=NO NITROGEN TETROXIDE	L	79.5[15]	175.2[15]	55.3[15]	14.6[15]	.0	.0	.0	.0
STA. SET=19 CAT=NO NITROGEN TETROXIDE	L	.0	.0	.0	.0	8164.6[12]	18000.0[12]	5677.5[12]	1500.0[12]
STA. SET=19 CAT=OS DECONTAMINATE FROM PAYLOAD/ORB N204	L	290.3 2.7	640.0 6.0	302.8	80.0 .5	.0 .0	.0 .0	.0	.0 .0
STA. SET=19 CAT=OS WASTE OXIDIZER AND PRIMOL 355[11] N204	L	37.2 2.7	82.0 6.0	37.8	10.0 .5	.0 .0	.0 .0	.0	.0 .0
STA. SET=19 CAT=PA KOROPON PRMER CONT PNT BRUSHES BUTYL ACETATE TALC - Mg SILICATES EPOXY RESIN	S	18.1[16]	40.0[16]	141.6	5.0	.0 .0 .0 .0	.0 .0 .0 .0	.0	.0 .0 .0 .0
STA. SET=19 CAT=PA LACQUER #626486	L	.6[17]	1.3[17]	.8	.2	.0	.0	.0	.0
STA. SET=19 CAT=PA CONTAMINATED BRUSHES ORGANIC ZINC PRIMER ZINC CHROMATE PRIMER	S	1.8[16]	4.0[16]	14.2	.5	.0 .0 .0	.0 .0 .0	.0	.0 .0 .0
STA. SET=19 CAT=PA ORGANIC ZINC PRIMER ZINC DUST BARYTES MOLYBDATE ORANGE SILICA HIGH MOLECULAR WEIGHT EPOXY CELLOSOLVE ACETATE TOLUENE METHYL ETHYL KETONE	L	5.7[18]	12.5[18]	5.7	1.5	.0 .0 .0 .0 .0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0 .0 .0 .0 .0	.0	.0 .0 .0 .0 .0 .0 .0 .0 .0 .0
STA. SET=19 CAT=PA CONTAMINATED PAINT BRUSHES EA 911 EPOXY EA 934 EPOXY EA 9309 EPOXY	S	1.8[16]	4.0[16]	14.2	.5	.0 .0 .0 .0	.0 .0 .0 .0	.0	.0 .0 .0 .0
STA. SET=19 CAT=SO DOPE & LACQUER THINNER ALIPHATIC NAPTHA ESTER OR KETONE (CONT.)	L	.8[17] .1 .4	1.8[17] .3 .8	.8	.2	.0 .0 .0	.0 .0 .0	.0	.0 .0 .0

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF
ISO- OR n-BUTYL ACETATE		.2	.5			.0	.0		.0
ISO- OR n-BUTYL ALCOHOL		.1	.2			.0	.0		.0
STA. SET=19 CAT=SW									
WASHWATER WITH MEK	L	42.4	93.5	45.4	12.0	.0	.0	.0	.0
METHYL ETHYL KETONE		6.1	13.5		2.0	.0	.0		.0
SUBTOTAL FOR STA. SET 19									
SOLIDS		59.6	131.4	1030.7	36.4				
LIQUIDS		6959.0	15342.0	7074.5	1869.1				
SUBTOTAL		7018.6	15473.4						
STA. SET=21 CAT=EW									
WASTEWATER FROM EEWLS	L	2725.4[4]	6008.4[4]	2725.2[4]	720.0[4]				
STA. SET=21 CAT=FS									
WASTEWATER WITH MMH	L	108.0	238.0	113.6	30.0	.0	.0	.0	.0
MMH		10.0	22.0		3.0	.0	.0		.0
STA. SET=21 CAT=HS									
FUEL SCRUBBER	L	362.9	800.0	378.5	100.0	.0	.0	.0	.0
MMH		6.6	14.6		2.0	.0	.0		.0
STA. SET=21 CAT=IN									
TILE REPAIR FOAM	S	4.5	10.0	416.2	14.7	.0	.0	.0	.0
POLYURETHANE		4.5	10.0		14.7	.0	.0		.0
STA. SET=21 CAT=MH									
MONOMETHYL HYDRAZINE	L	.0	.0	.0	.0				
STA. SET=21 CAT=NO									
NITROGEN TETROXIDE	L	.0	.0	.0	.0	4898.8[19]	10800.0[19]	3406.5[19]	900.0[19]
STA. SET=21 CAT=NO									
NITROGEN TETROXIDE	L	15.0	33.0	10.6	2.8	.0	.0	.0	.0
STA. SET=21 CAT=NO									
NITROGEN TETROXIDE	L	51.3	113.0	35.6	9.4	.0	.0	.0	.0
STA. SET=21 CAT=NO									
NITROGEN TETROXIDE	L	.0	.0	.0	.0	4898.8[20]	10800.0[20]	3406.5[20]	900.0[20]
STA. SET=21 CAT=OS									
WASTEWATER WITH OXIDIZER	L	72.8	160.4	75.7	20.0	.0	.0	.0	.0
N204		.5	1.2		.1	.0	.0		.0
STA. SET=21 CAT=SW									
WASTEWATER WITH MEK	L	42.4	93.4	45.4	12.0	.0	.0	.0	.0
METHYL ETHYL KETONE		6.1	13.4		2.0	.0	.0		.0

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF
STA. SET=21 CAT=WP WASTE SEALS, FILTERS, ETC.	S	4.5[21]	10.0[21]	283.2	10.0	.0	.0	.0	.0
SUBTOTAL FOR STA. SET 21 SOLIDS LIQUIDS SUBTOTAL		9.1 3377.5 3386.6	20.0 7446.2 7466.2	699.4 3384.5	24.7 894.2				
STA. SET=23 CAT=EW WASTEWATER FROM EEW&S	L	3028.2[4]	6676.0[4]	3028.0[4]	800.0[4]				
STA. SET=23 CAT=FS HYDRAZINE-CONTAM. WASTEWATER HYDRAZINE	L	567.9 28.1	1252.0 62.0	567.8	150.0 .3				
STA. SET=23 CAT=FS HYDRAZINE-CONTAM. CLNUP WATER HYDRAZINE	L	189.1 2.1	417.0 4.6	189.3	50.0 .5				
STA. SET=23 CAT=FS WASTEWATER FROM PPR HYDRAZINE	L	2271.1	5007.0	2271.0	600.0				
STA. SET=23 CAT=FS PRIMOL 355[11] HYDRAZINE MMH	L	340.6	751.0	378.5	100.0				
STA. SET=23 CAT=HF HYDRAULIC FLUIDS TETRAORTHOCRESOL PHOSPHATE	L	393.7 393.7	868.0 868.0	378.5	100.0 100.0	.0 .0	.0 .0	.0	.0 .0
STA. SET=23 CAT=KS HYDRAZINE & MMH SCRUBBER HYDRAZINE MMH	L	757.0[18] 16.8 13.2	1669.0[18] 37.0 29.0	757.0	200.0 4.0 4.0	.0 .0 .0	.0 .0 .0	.0	.0 .0 .0
STA. SET=23 CAT=HY HYDRAZINE	L	208.2	459.0	189.3	50.0	.0	.0	.0	.0
STA. SET=23 CAT=HY LBM PROPELLANT PARAHYDRAZINE UNSYM DIMETHYLHYDRAZINE	L	.0 .0 .0	.0 .0 .0	.0	.0 .0 .0	79378.3[22] 39689.1 39689.1	175000.0[22] 87500.0 87500.0	79373.3[22]	20970.5[22]
STA. SET=23 CAT=HY HYDRAZINE	L	.0	.0	.0	.0	5425.4[22]	11961.0[22]	5425.0[22]	1433.3[22]
STA. SET=23 CAT=IN K5NA INSULATION (CONT.)	S	10.4	23.0	84.9	3.0	.0	.0	.0	.0

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF
BUTYL GLYCIDYL ETHER						.0	.0		.0
EPOXY RESINS, UNCURED						.0	.0		.0
STA. SET=23 CAT=MH MONOMETHYL HYDRAZINE	L	330.7	729.0	378.5	100.0	.0	.0	.0	.0
STA. SET=23 CAT=MH MONOMETHYL HYDRAZINE	L	.0	.0	.0	.0	12052.3[22]	26571.0[22]	13788.8[22]	3643.0[22]
STA. SET=23 CAT=NH AMMONIA	L	.0	.0	.0	.0	47.2[22]	104.0[22]	61.3[22]	16.2[22]
STA. SET=23 CAT=NO NITROGEN TETROXIDE	L	183.4	404.3	123.0	32.5	.0	.0	.0	.0
STA. SET=23 CAT=NO LBM OXIDIZER	L	.0	.0	.0	.0	79378.3[22]	175000.0[22]	53254.9[22]	14070.0[22]
NITROGEN TETROXIDE		.0	.0		.0	79378.3	175000.0		
STA. SET=23 CAT=NO NITROGEN TETROXIDE	L	.0	.0	.0	.0	28129.8[22]	62016.0[22]	19398.9[22]	5125.2[22]
STA. SET=23 CAT=OS N204 CONTAM. CLEANUP WATER	L	113.4	250.0	113.6	30.0				
NITROGEN TETROXIDE		1.1	2.5		.3				
STA. SET=23 CAT=OS N204 CONTAM. WASTEWATER	L	378.3	834.0	378.5	100.0				
NITROGEN TETROXIDE		28.1	62.0		5.0				
STA. SET=23 CAT=OS PRIMOL 355[11] N204	L	340.6	751.0	378.5	100.0				
STA. SET=23 CAT=PS SRB PROPELLANT SPILL[23]	S	.0	.0	.0	.0	504301.3[24]	1111800.0[24]	261436.0[24]	9232.8[24]
AMMONIUM PERCHLORATE		.0	.0		.0	351033.3	773900.0		
ALUMINUM POWDER		.0	.0		.0	80648.3	177800.0		
PBAN BINDER		.0	.0		.0	70578.6	155600.0		
HTPB BINDER		.0	.0		.0	33.1	73.0		
IRON OXIDE		.0	.0		.0	2018.5	4450.0		
STA. SET=23 CAT=QW DELUGE WATER	L	567894.6	1252000.0	567750.0	150000.0	.0	.0	.0	.0
ALUMINUM OXIDE		3.4	7.4			.0	.0		.0
AMMONIA		.2	.5			.0	.0		.0
HYDROCHLORIC ACID		362.4	799.0			.0	.0		.0
ORGANIC CARBON		3.4	7.5			.0	.0		.0
STA. SET=23 CAT=SO SOLVENT MIXTURE	L	291.5	642.6	208.2	55.0[25]	.0	.0	.0	.0

(CONT.)

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
FREON TMC/MF/TF		.0	.0		.0	.0	.0		.0
SYM. TETRACHLOROETHANE		.0	.0		.0	.0	.0		.0
STA. SET=23 CAT=SO CONTAMINATED SOLVENTS	L	264.9[26]	584.0[26]	189.3	50.0	.0	.0	.0	.0
STA. SET=23 CAT=SW SOLVENT WASTEWATER UNSPEC.	L	416.4[18]	918.0[18]	416.3	110.0[25]	.0	.0	.0	.0
STA. SET=23 CAT=SW CONTAMINATED WASTEWATER	L	946.2[18]	2086.0[18]	946.3	250.0	.0	.0	.0	.0
SOLVENTS						.0	.0		.0
CHLORINATED RUBBER						.0	.0		.0
ZINC PRIMER						.0	.0		.0
SUBTOTAL FOR STA. SET 23									
SOLIDS		10.4	23.0	84.9	3.0				
LIQUIDS		578915.9	1276297.8	578641.4	152877.5				
SUBTOTAL		578926.3	1276320.8						
STA. SET=31 CAT=AL SURFACTANT	L					.0	.0	.0	.0
NaOH						.0	.0		.0
SODIUM TRIPOLYPHOSPHATE						.0	.0		.0
STA. SET=31 CAT=AW EA 934 EPOXY ADHESIVE	S	15.9[26]	35.0[26]	84.9	3.0[24]	.0	.0	.0	.0
EPOXY RESIN		6.8	15.0			.0	.0		.0
ASBESTOS		1.8	4.0			.0	.0		.0
FILLERS		3.2	7.0			.0	.0		.0
POLYAMIDE		3.6	8.0			.0	.0		.0
DIETHYLENETRIAMINE		.5	1.0			.0	.0		.0
STA. SET=31 CAT=CA CONTAMINATED AIR FILTERS	S	22.7	50.0	1415.8[21]	50.0[21]	.0	.0	.0	.0
STA. SET=31 CAT=CA CHARCOAL FILTER WASTES	S					.0	.0	.0	.0
STA. SET=31 CAT=CA CONTAMINATED AIR FILTERS	S	22.7	50.0	1415.8[21]	50.0[21]	.0	.0	.0	.0
STA. SET=31 CAT=CN BOSTIK PRIMER PAINT CANS	S	6.8[6]	15.0[6]	56.6	2.0	.0	.0	.0	.0
STA. SET=31 CAT=CN BOSTIK TOPCOAT PAINT CANS	S	20.4[6]	45.0[6]	169.9	6.0	.0	.0	.0	.0
STA. SET=31 CAT=CN RUSTOLEUM PRIMER PAINT CANS	S	.9[6]	2.0[6]	8.5	.3	.0	.0	.0	.0

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
STA. SET=31 CAT=CH RUSTOLEUM TOPCOAT PAINT CANS	S	.9[6]	2.0[6]	8.5	.3	.0	.0	.0	.0
STA. SET=31 CAT=CH MSA-1 EMPTY CONTAINERS	S	453.6[28]	1000.0[28]	8494.8	300.0	.0	.0	.0	.0
STA. SET=31 CAT=CH K5NA CONTAINERS	S	3.4	7.5	56.6	2.0	.0	.0	.0	.0
STA. SET=31 CAT=CH K5NA & MTA-2 PACKING MATERIALS	S	2267.9[28]	5000.0[28]	42474.0	1500.0	.0	.0	.0	.0
STA. SET=31 CAT=CR SOLVENT CONTAMINATED RAGS	S	4.5[9]	10.0[9]	56.6	2.0	.0	.0	.0	.0
STA. SET=31 CAT=CR ALODINE CONTAMINATED RAGS	S	2.3[9]	5.0[9]	28.3	1.0	.0	.0	.0	.0
STA. SET=31 CAT=CR RYMPLE CLOTHS	S	4.5[9]	10.0[9]	56.6	2.0	.0	.0	.0	.0
STA. SET=31 CAT=CR PAINT DROP CLOTHS	S	6.8[9]	15.0[9]	84.9	3.0	.0	.0	.0	.0
STA. SET=31 CAT=EW WASTEWATER FROM EEWLS	L	1211.3[4]	2670.4[4]	1211.2[4]	320.0[4]				
STA. SET=31 CAT=FO FUEL AND OIL SPILLS	L	.0	.0	.0	.0				
STA. SET=31 CAT=FO FUEL & OIL WASTES	L	38.1	84.0	37.8	10.0	.0	.0	.0	.0
STA. SET=31 CAT=FS PRIMOL 355[11]	L	.0	.0	.0	.0				
STA. SET=31 CAT=HS SCRUBBER EFFLUENT	L	37.6[18]	83.0[18]	37.8	10.0	.0	.0	.0	.0
STA. SET=31 CAT=HY HYDRAZINE	L	109.5	241.3	109.0	28.8	.0	.0	.0	.0
STA. SET=31 CAT=IH MSA-1 (CURED)[29]	S	90.7	200.0	1248.7	44.1[25]	.0	.0	.0	.0
EPICHLORHYDRIN/BGE		36.3	80.1			.0	.0		.0
GLASS ECOSPHERES		10.7	23.6			.0	.0		.0
PHENOLIC MICROSPHERES		32.2	70.9			.0	.0		.0
GLASS FIBERS		4.0	8.8			.0	.0		.0
BENTONE 27		3.0	6.7			.0	.0		.0
(CONT.)									

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB PAGE 12

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
METHYLENE DIANILINE		3.2	7.0			.0	.0		.0
m-PHENYLENE DIAMINE		1.3	2.9			.0	.0		.0
STA. SET=31 CAT=IN									
M3A-1, PART A (UNMIXED)[30]	L					.0	.0	.0	.0
METHYLENE CHLORIDE						.0	.0		.0
EPICHLORHYDRIN/BGE						.0	.0		.0
STA. SET=31 CAT=IN									
MSA-1, PART B (UNMIXED)[30]	L					.0	.0	.0	.0
METHYLENE CHLORIDE						.0	.0		.0
PERCHLOROETHYLENE						.0	.0		.0
METHYLENE DIANILINE						.0	.0		.0
m-PHENYLENE DIAMINE						.0	.0		.0
ETHYL ALCOHOL						.0	.0		.0
PHENOLIC MICROSPHERES						.0	.0		.0
GLASS ECOSPHERES						.0	.0		.0
GLASS FIBERS						.0	.0		.0
BENTONE 27						.0	.0		.0
STA. SET=31 CAT=IN									
MTA-2 (CURED)[29]	S	45.4	100.0	4247.4	150.0	.0	.0	.0	.0
EPICHLORHYDRIN/BGE		14.0	30.9			.0	.0		.0
LP-3, POLYSULFIDE LIQ POLYMER		14.0	30.9			.0	.0		.0
MDA & mPDA		5.6	12.3			.0	.0		.0
STANNOUS OCTOATE		.5	1.2			.0	.0		.0
PHENOLIC MICROSPHERES		11.2	24.7			.0	.0		.0
STA. SET=31 CAT=IN									
MTA-2 (UNMIXED)[30]	L	13.6	30.0	151.4	40.0	.0	.0	.0	.0
EPICHLORHYDRIN/BGE		4.2	9.3			.0	.0		.0
LP-3, POLYSULFIDE LIQ POLYMER		4.2	9.3			.0	.0		.0
MDA & mPDA		1.7	3.7			.0	.0		.0
STANNOUS OCTOATE		.2	.4			.0	.0		.0
PHENOLIC MICROSPHERES		3.4	7.4			.0	.0		.0
METHYLENE CHLORIDE						.0	.0		.0
PERCHLOROETHYLENE						.0	.0		.0
STA. SET=31 CAT=IN									
K5HA	S	7.3	16.0	56.6	2.0	.0	.0	.0	.0
BUTYL GLYCIDYL ETHER						.0	.0		.0
EPOXY RESINS						.0	.0		.0
STA. SET=31 CAT=IN									
INSULATION AND PAPER	S					.0	.0	.0	.0
STA. SET=31 CAT=PA									
BOSTIK EPOXY PRIMER	L	12.2	27.0	11.4	3.0	.0	.0	.0	.0
EPOXY RESIN		1.6	3.5			.0	.0		.0
AMINE CURING AGENT		.3	.6			.0	.0		.0

(CONT.)

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF
TITANIUM DIOXIDE		.3	.6			.0	.0		.0
CHROMATE PIGMENTS		.5	1.2			.0	.0		.0
INERT PIGMENTS		1.7	3.8			.0	.0		.0
SUSPENSION & FLOW CONTROL ADDI		<.1	.1			.0	.0		.0
SOLVENTS		7.3	16.2			.0	.0		.0
STA. SET=31 CAT=PA									
BOSTIK EPOXY TOPCOAT	L	16.8	37.0	15.1	4.0	.0	.0	.0	.0
EPICHLORHYDRIN/BISPHENOL A		4.1	9.0			.0	.0		.0
AMINE CURING AGENT		.6	1.4			.0	.0		.0
COLOR PIGMENT		3.4	7.5			.0	.0		.0
SUSPENSION & FLOW CONTROL ADDI		.2	.5			.0	.0		.0
SOLVENTS PHOTOCHEM REACTIVE		1.6	3.5			.0	.0		.0
SOLVENTS NONPHOTOCHEM REACTIVE		6.8	15.0			.0	.0		.0
STA. SET=31 CAT=PA									
RUSTOLEUM PRIMER	L	3.6	8.0	3.8	1.0	.0	.0	.0	.0
SILICATES		.6	1.3			.0	.0		.0
YELLOW IRON OXIDE		.3	.6			.0	.0		.0
TITANIUM DIOXIDE		.1	.2			.0	.0		.0
CALCIUM BOROSILICATE		.7	1.5			.0	.0		.0
BENTONITE		<.1	<.1			.0	.0		.0
LINSEED PHENOLIC ALKYL RESIN		.7	1.6			.0	.0		.0
ALIPHATIC HYDROCARBONS		1.2	2.6			.0	.0		.0
DRIERS AND ADDITIVES		.1	.2			.0	.0		.0
STA. SET=31 CAT=PA									
RUSTOLEUM TOPCOAT	L	3.6	8.0	3.8	1.0	.0	.0	.0	.0
SILICATES		1.2	2.6			.0	.0		.0
TITANIUM DIOXIDE		.6	1.4			.0	.0		.0
BENTONITE CLAY		<.1	<.1			.0	.0		.0
TINTING COLORS		.1	.2			.0	.0		.0
ALKYL RESIN		.6	1.4			.0	.0		.0
ALIPHATIC HYDROCARBONS		1.1	2.4			.0	.0		.0
DRIERS & ADDOTIVES		<.1	.1			.0	.0		.0
STA. SET=31 CAT=PA									
GACOFLEX	L	17.7	39.0	11.4	3.0	.0	.0	.0	.0
TITANIUM DIOXIDE		1.2	2.7			.0	.0		.0
CLAY		1.4	3.1			.0	.0		.0
HYPALON		1.8	3.9			.0	.0		.0
HYDROCARBON RESIN		.4	.8			.0	.0		.0
PERCHLOROETHYLENE		8.3	18.3			.0	.0		.0
1,1,1-TRICHLOROETHANE		4.4	9.8			.0	.0		.0
EPOXIDIZED SOYBEAN OIL		.2	.4			.0	.0		.0
STA. SET=31 CAT=PA									
PAINT-SPILL ABSORBANT	L	.0	.0	.0	.0				
STA. SET=31 CAT=PW									
ALODINE CONTAMINATED WASTEWATR (CONT.)	L	151.5[18]	334.0[18]	151.4	40.0	.0	.0	.0	.0

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
CHROMIC ACID		2.7[31]	5.9[31]			.0	.0		.0
FERRICYANIDE SALT		1.5	3.3			.0	.0		.0
COMPLEX FLUORIDE SALT		.0	.1			.0	.0		.0
STA. SET=31 CAT=SO PERCHLOROETHYLENE	L	.6	1.4	.4	.1	.0	.0	.0	.0
STA. SET=31 CAT=SO TRICHLOROETHANE	L	.5	1.1	.4	.1	.0	.0	.0	.0
STA. SET=31 CAT=SO FREON 113	L	.6	1.3	.4	.1	.0	.0	.0	.0
STA. SET=31 CAT=SO MSA-1 CONTAMINATED MECl	L	1505.5	3319.0	1135.5	300.0	.0	.0	.0	.0
STA. SET=31 CAT=SO MSA-1 CONTAM PERCHLOROETHYLENE	L	1852.0	4083.0	1135.5	300.0	.0	.0	.0	.0
STA. SET=31 CAT=SO PERCHLOROETHYLENE	L	277.6	612.0	170.3	45.0	.0	.0	.0	.0
STA. SET=31 CAT=SO TRICHLOROETHANE	L	81.6	180.0	60.6	16.0	.0	.0	.0	.0
STA. SET=31 CAT=SO METHYLENE CHLORIDE	L	255.8	564.0	193.0	51.0	.0	.0	.0	.0
STA. SET=31 CAT=SO MTA-2 CONTAMINATED SOLVENTS	L	529.8[26]	1168.0[26]	378.5	100.0	.0	.0	.0	.0
STA. SET=31 CAT=SO BOSTIK CONTAMINATED SOLVENTS	L	264.9[26]	584.0[26]	189.3	50.0	.0	.0	.0	.0
STA. SET=31 CAT=SO RUSTOLEUM CONTAMINATED SOLVENT	L	264.9[26]	584.0[26]	189.3	50.0	.0	.0	.0	.0
SUBTOTAL FOR STA. SET 31									
SOLIDS		2976.7	6562.5	59964.8	2117.7				
LIQUIDS		6649.4	14659.5	5197.2	1373.1				
SUBTOTAL		9626.1	21222.0						
STA. SET=32 CAT=BA LITHIUM STORAGE BATTERIES	S	24.5	54.0	42.5	1.5	.0	.0	.0	.0
STA. SET=32 CAT=BA SILVER-ZINC STORAGE BATTERIES	S	40.8	90.0	51.0	1.8	.0	.0	.0	.0
STA. SET=32 CAT=BA POTASSIUM HYDROXIDE SOLUTION	L	8.7[18]	19.2[18]	8.7	2.3	.0	.0	.0	.0

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF
STA. SET=32 CAT=CB									
HYDRAZINE-CONTAMINATED WATER	L	108.9[18]	240.0[18]	113.6	30.0	.0	.0	.0	.0
STA. SET=32 CAT=CS									
CONTAMINATED SEAWATER[32]	L	.0	.0	.0	.0				
STA. SET=32 CAT=CS									
CONTAMINATED SEAWATER[32]	L	14514.9	32000.0	15140.0	4000.0	.0	.0	.0	.0
STA. SET=32 CAT=CW									
SRB FWD SKT CLEANING WASTES	L					.0	.0	.0	.0
STA. SET=32 CAT=EW									
WASTEWATER FROM EEW&S	L	605.6[4]	1335.2[4]	605.6[4]	160.0[4]				
STA. SET=32 CAT=FO									
BILGE WASTES	L					.0	.0	.0	.0
STA. SET=32 CAT=FO									
DIESEL FUEL & OIL SPILLS	L	.0	.0	.0	.0				
STA. SET=32 CAT=FS									
WASTE FUEL & PRIMOL 355[11]	L	.0	.0	.0	.0				
HYDRAZINE		.0	.0		.0				
STA. SET=32 CAT=HS									
HYDRAZINE SCRUBBER EFFLUENT	L	181.4[18]	400.0[18]	189.3	50.0	.0	.0	.0	.0
HYDRAZINE		1.6	3.6		.4	.0	.0		.0
STA. SET=32 CAT=HY									
HYDRAZINE	L	41.0	90.5	40.9	10.8	.0	.0	.0	.0
STA. SET=32 CAT=IN									
INSULATION WASTES, SOLID[33]	S	725.7	1600.0	11326.4[34]	400.0[34]	.0	.0	.0	.0
MSA-1 INSULATION						.0	.0		.0
MTA-2 INSULATION						.0	.0		.0
K5NA INSULATION						.0	.0		.0
PR-855 INSULATION						.0	.0		.0
STA. SET=32 CAT=IN									
INSULATION CONTAM FILTERS	S	4.5[21]	10.0[21]	283.2	10.0	.0	.0	.0	.0
STA. SET=32 CAT=IW									
INSULATION-CONTAMINATED WATER[33]	L	185291.5[18]	408500.0[18]	185313.6	48960.0	.0	.0	.0	.0
MSA-1 INSULATION						.0	.0		.0
MTA-2 INSULATION						.0	.0		.0
K5NA INSULATION						.0	.0		.0
PR-855 INSULATION						.0	.0		.0
STA. SET=32 CAT=PR									
PRESERVATIVE CHEMICALS (CONT.)	L					.0	.0	.0	.0

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	POUNDS	VOLUME LITERS[1]	GAL OR CF
PROTECTIVE LUBRICANTS						.0	.0		.0
STA. SET=32 CAT=PS									
SRB SOLID PROPELLANT	S	.0	.0	.0	.0	78.5[24]	173.0[24]	39.6[24]	1.4[24]
AMMONIUM PERCHLORATE		.0	.0		.0	54.4	120.0		
ALUMINUM POWDER		.0	.0		.0	12.7	28.0		
FERRIC OXIDE		.0	.0		.0	.5	1.0		
POLYMER & EPOXY RESIN		.0	.0		.0	10.9	24.0		
STA. SET=32 CAT=SB									
DETERGENT WASHWATER[35]	L	34835.7	76800.0	36336.0	9600.0	.0	.0	.0	.0
STA. SET=32 CAT=SB									
POTABLE RINSE WATER	L	120473.5	265600.0	125662.0	33200.0	.0	.0	.0	.0
STA. SET=32 CAT=SB									
DEIONIZED RINSE WATER	L	56390.3	124320.0	58818.9	15540.0	.0	.0	.0	.0
STA. SET=32 CAT=SI									
SRB RINSE WATER	L	21772.3	48000.0	22710.0	6000.0	.0	.0	.0	.0
STA. SET=32 CAT=SO									
SOLVENTS	L	10.6[26]	23.4[26]	7.6	2.0	.0	.0	.0	.0
FREON TMC/TM						.0	.0		.0
SOLVENTS, UNSPECIFIED						.0	.0		.0
SUBTOTAL FOR STA. SET 32									
SOLIDS		795.6	1754.0	11703.0	413.3				
LIQUIDS		434234.5	957328.3	444946.1	117555.1				
SUBTOTAL		435030.1	959082.3						
STA. SET=33 CAT=CA									
AIR FILTERS	S	4.5[21]	10.0[21]	283.2	10.0	.0	.0	.0	.0
STA. SET=33 CAT=EW									
WASTEWATER FROM EEW&S	L	189.1	417.0	189.3	50.0				
STA. SET=33 CAT=HF									
HYDRAULIC FLUIDS	L					.0	.0	.0	.0
SUBTOTAL FOR STA. SET 33									
SOLIDS		4.5	10.0	283.2	10.0				
LIQUIDS		189.1	417.0	189.3	50.0				
SUBTOTAL		193.7	427.0						
STA. SET=99 CAT=AW									
GX-6300 ABLATOR ADHESIVE	S	5.9	13.0			.0	.0	.0	.0
RESIN STM L 663		.6	1.3			.0	.0		.0
(CONT.)									

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
RESIN STM L 664		2.2	4.8			.0	.0		.0
SILICA POWDER		.2	.4			.0	.0		.0
CARBON POWDER		.2	.4			.0	.0		.0
CURING AGENT L 663		.2	.5			.0	.0		.0
CURING AGENT L 664		<.1	.1			.0	.0		.0
HEPTANE		2.4	5.2			.0	.0		.0
XYLENE		.1	.3			.0	.0		.0
STA. SET=99 CAT=AW									
ISOCHEM POLYESTER RESIN ADHESV	S	5.9	13.0			.0	.0	.0	.0
STYRENE						.0	.0		.0
MEK PEROXIDE CATALYST						.0	.0		.0
DIMETHYL PHTHALATE						.0	.0		.0
STA. SET=99 CAT=CA									
FILTER	S					.0	.0	.0	.0
STA. SET=99 CAT=CN									
SOLVENT CONTAMINATED CONTAINER	S	2.3[28]	5.0[28]	42.5	1.5	.0	.0	.0	.0
SOLVENTS[36]						.0	.0		.0
STA. SET=99 CAT=CN									
PRIMER CONTAMINATED CONTAINERS	S	.3[28]	.7[28]	5.7	.2	.0	.0	.0	.0
STA. SET=99 CAT=CN									
ADHESIVE CONTAMINATED CONTAINR	S	.3[28]	.7[28]	5.7	.2	.0	.0	.0	.0
STA. SET=99 CAT=CN									
SOLVENT CONTAINERS	S					.0	.0	.0	.0
STA. SET=99 CAT=CN									
POUR FOAM CONTAINERS	S	22.7	50.0	379.4[28]	13.4[28]	.0	.0	.0	.0
STA. SET=99 CAT=CN									
ABLATOR CONTAMINATED CONTAINER	S	.3[28]	.7[28]	5.7	.2	.0	.0	.0	.0
STA. SET=99 CAT=CR									
SOLVENT CONTAMINATED RAGS	S	4.5[9]	10.0[9]	56.6	2.0	.0	.0	.0	.0
STA. SET=99 CAT=CR									
ADHESIVE CONTAMINATED RAGS	S	4.5[9]	10.0[9]	56.6	2.0	.0	.0	.0	.0
STA. SET=99 CAT=CR									
EPOXY PRIMER-CONTAMINATED RAGS	S	2.3[9]	5.0[9]	28.3	1.0	.0	.0	.0	.0
STA. SET=99 CAT=IN									
BX-250 FOAM (SOFI)	S	117.9	260.0	3681.1	130.0	.0	.0	.0	.0
DIPHENYL METHANE DIISOCYANATE		29.5	65.0			.0	.0		.0
FREON 11		19.1	42.0			.0	.0		.0
AMINES		10.4	23.0			.0	.0		.0
(CONT.)									

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS[1]	VOLUME GAL OR CF
POLYOLS						.0	.0		.0
SUPER MEK PEROXIDE						.0	.0		.0
POLYESTER RESIN						.0	.0		.0
DIMETHYL PHTHALATE						.0	.0		.0
STA. SET=99 CAT=IN									
POUR FOAM (MIXED)[29]	S	124.7[37]	275.0[37]	2775.0	98.0	.0	.0	0	.0
POLYURETHANE						.0	.0		.0
STA. SET=99 CAT=IN									
POUR FOAM PART A (UNMIXED)[30]	L	6.4	14.0	18.9	5.0	.0	.0	0	.0
DIPHENYL METHANE DIISOCYANATE		3.2	7.0			.0	.0		.0
FREON 11		2.0	4.5			.0	.0		.0
POLYOLS, AMINES		1.1	2.5			.0	.0		.0
STA. SET=99 CAT=IN									
POUR FOAM PART B (UNMIXED)[30]	L	6.4	14.0	18.9	5.0	.0	.0	.0	.0
FREON 11		1.3	2.8			.0	.0		.0
AMINE CATALYST		.1	.3			.0	.0		.0
POLYETHER POLYOL BLEND		4.9	10.9			.0	.0		.0
STA. SET=99 CAT=IN									
POUR FOAM CONTAMINATED PAPER	S	1.5[28]	3.3[28]	311.5	11.0	.0	.0	.0	.0
STA. SET=99 CAT=IN									
SUPER LIGHT ABLATOR (I)	S	4.5	10.0	424.7[38]	15.0[38]	.0	.0	.0	.0
RESIN L664, PT A		2.7	5.9			.0	.0		.0
SILICA FIBERS		.3	.6			.0	.0		.0
CORK		.5	1.2			.0	.0		.0
PHENOLIC MICROSPHERES		.1	.3			.0	.0		.0
SILICA MICROSPHERES		.6	1.4			.0	.0		.0
CURING AGENT		.3	.6			.0	.0		.0
STA. SET=99 CAT=IN									
SUPER LIGHT ABLATOR (II)	S	4.5	10.0	424.7[38]	15.0[38]	.0	.0	.0	.0
RESIN STM L664, PT A		1.4	3.0			.0	.0		.0
CARBON POWDER						.0	.0		.0
SILICA FIBERS						.0	.0		.0
CORK						.0	.0		.0
SILICA MICROSPHERES						.0	.0		.0
PHENOLIC MICROSPHERES						.0	.0		.0
CURING AGENT STM L664, PT B		.8	1.7			.0	.0		.0
STA. SET=99 CAT=IN									
POUR FOAM "TRIMMINGS"	S	4.5	10.0	424.7[38]	15.0[38]	.0	.0	.0	.0
POLYURETHANE						.0	.0		.0
STA. SET=99 CAT=PA									
EPOXY PRIMER	L	<.1	.1			.0	.0	.0	.0
METHYLENE ISOBUTYL KETONE						.0	.0		.0

(CONT.)

TABLE 8 (CONT.) UNIT GENERATION OF SHUTTLE TRANSPORT SYSTEM HAZARDOUS WASTES AT VAFB

WASTE MATERIAL	SOL OR LIQ	QUANTITY PER LAUNCH BASELINE MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS(1)	VOLUME GAL OR CF	QUANTITY PER EVENT CONTINGENCY MASS KILOGRAMS	MASS POUNDS	VOLUME LITERS(1)	VOLUME GAL OR CF
XYLENE						.0	.0		.0
CYCLOHEXANONE						.0	.0		.0
CHROMATES						.0	.0		.0
INORGANIC PIGMENTS						.0	.0		.0
N-BUTANOL						.0	.0		.0
TOLUENE						.0	.0		.0
AMINO SILANE						.0	.0		.0
METHYL ETHYL KETONE						.0	.0		.0
STA. SET=99 CAT=PA									
D.C. 1200	L	<.1(27)	<.1(27)	<.1	<.1	.0	.0	.0	.0
VM AND P NAPTHA						.0	.0		.0
ORGANOMETALLIC SALTS						.0	.0		.0
STA. SET=99 CAT=SO									
FREON TMC	L	.1(27)	.3(27)	<.1	<.1	.0	.0	.0	.0
STA. SET=99 CAT=SO									
1,1,1-TRICHLOROETHANE	L	.1(27)	.3(27)	<.1	<.1	.0	.0	.0	.0
STA. SET=99 CAT=SO									
MEK & CELLOSOLVE	L	12.2	26.9	15.1	4.0	.0	.0	.0	.0
STA. SET=99 CAT=SO									
HEPTANE	L	75.1	165.5	113.2	29.9	.0	.0	.0	.0
STA. SET=99 CAT=SO									
CELLOSOLVE ACETATE	L	107.0	236.0	113.2	29.9	.0	.0	.0	.0
STA. SET=99 CAT=SO									
METHYL ETHYL KETONE	L	88.4	194.9	109.8	29.0	.0	.0	.0	.0
STA. SET=99 CAT=SR									
SOLVENT REDUCER	L	.5	1.2	.4	.1	.0	.0	.0	.0
METHYL ETHYL KETONE		.4	.8		.0	.0	.0		.0
CYCLOHEXANONE		.2	.4		.0	.0	.0		.0
STA. SET=99 CAT=SW									
SOLVENT CONTAMINATED WATER	L	81.0	178.6	113.6	30.0	.0	.0	.0	.0
SUBTOTAL FOR STA. SET 99									
SOLIDS		306.8	676.4	8622.2	304.5				
LIQUIDS		377.3	831.9	503.0	132.9				
SUBTOTAL		684.1	1508.3						
GRAND TOTAL, ALL STATION SETS									
SOLIDS		4162.7	9177.3	82388.2	2909.6				
LIQUIDS		1035809.3	2283580.5	1044184.5	275874.4				
TOTAL		1039972.0	2292758.0						

1. Volume of solids and liquids is expressed in liters to maintain consistency in table format. Divide liters by 1,000 to obtain cubic meters of solids.

2. Station Set Zero is used for wastes from the space shuttle launches which are generated at a place other than a designated station set (e.g., SCAPE suit cleaning facility).

3. This assumes that cleaning the SCAPE suits will require approximately 2 gallons (7.6 liters) of freon per SCAPE suit.

4. Baseline amounts are based on the assumption that each SCAPE suit at a given station set is prerinsed with EEW&S water for 10 minutes at a rate of 4 gallons (15 liters) per minute once every launch cycle (20).

5. Waste is not generated every launch cycle. Amount per launch used to calculate amount per year represents an average for multiple launch cycles.

6. Paint cans are assumed to weigh 7.5 pounds per cubic foot (120 kg/m^3), or 1 pound per gallon can.

7. Spray cans are assumed to weigh 6 pounds per cubic foot (95 kg/m^3).

8. Cups and wood sticks are assumed to weigh 3 pounds per cubic foot (48 kg/m^3).

9. Contaminated rags are assumed to weigh 5 pounds per cubic foot (80 kg/m^3).

10. Contaminated clothes, cloth, and debris are assumed to weigh 2 pounds per cubic foot (32 kg/m^3).

11. Primol 355 is a high-viscosity mineral oil. Usage requires a design decision and Air Force approval. Either Primol 355, another oil, or a foam will be used to prevent vaporization of spilled hypergols.

12. Contingency is a once-around abort. It is assumed that once every 2 years, independent of the number of launches, one before-launch abort and one once-around abort will occur. Values reported on a per year basis represent half the waste from an abort.

13. Density of Instant Set Polymer scraps is assumed to be 5 pounds per cubic foot (79 kg/m^3).

14. This waste could be off-loaded either at Station Set V19 or V21. Station Set V19 has been arbitrarily chosen.

15. The operation generating this waste occurs once every 5 launches. The unit factor per launch used to calculate annual quantities equals the total amount of waste generated per operation divided by 5.

16. Paint brushes are assumed to weigh 8 pounds per cubic foot (128 kg/m^3).

17. This assumes a density of 0.8 g/ml (6.7 lb/gal).

18. This assumes the density of water (1.0 g/ml; 8.3 lb/gal).

19. This assumes that the acquisition screen test which produces the wastes occurs an average of once every three launch cycles.

20. This assumes that one payload bay kit is spilled per year, independent of the number of launches.

21. Contaminated filters are assumed to weigh 1 pound per cubic foot (16 kg/m^3).

22. Contingency is a before-launch abort. It is assumed that once every 2 years, independent of the number of launches, one before-launch abort and one once-around abort will occur (15). Values reported on a per year basis represent half the waste from an abort.

23. This contingency could occur either at Station Set V23 or V31. Station Set V23 has been arbitrarily chosen.

24. This contingency assumes one SRB per year is damaged and releases propellant, independent of the number of launches. Contingency amounts for an SRB propellant spill are not included in the total contingency amounts for the station set and for all wastes combined. Should this unlikely event occur, it is assumed that the propellant will spontaneously ignite and burn.

25. Volume given is amount based on number of 55-gallon drums required to hold the waste.

26. This assumes a density of 1.4 g/ml (11.7 lb/gal), based on the average density of solvents commonly used for STS operations.

27. This assumes that 10 percent of total amount used becomes waste (4).

28. Containers and packing materials are assumed to weigh 0.3 pounds per cubic feet.

29. Insulation is mixed, but not used.

30. Insulation is unmixed, but with the shelf life exceeded.

31. This assumes wastewater is 5 percent alodine by weight.

32. Nature of contaminants not determined.

33. This assumes that all insulations are removed with equal efficiency. Quantities ignore loss of material due to burnoff.

34. This assumes a density of 4 pounds per cubic foot (64 kg/m^3).

35. Contains unidentified surfactants and/or detergents.

36. Solvents include Freon TMC, trichloroethane, methyl ethyl ketone, and cellosolve (4).

37. Density of pour foam is assumed to be 2.8 pounds per cubic foot (45 kg/m^3).

38. Density of ablator is assumed to be 0.67 pounds per cubic foot (10.6 kg/m^3).

TABLE 9. HAZARDOUS WASTE GENERATION FOR 1985 *

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 0 (2) CAT= SO						
CONTAMINATED FREON	792.3 (3)	1746.7 (3)	9507.2 (3)	20960.0 (3)	.0	.0
SUBTOTAL FOR SET 0	792.3	1746.7	9507.2	20960.0	.0	.0
STA.SET= 17 CAT= EW						
WASTEWATER FROM EEW&S	908.5 (4)	2002.8 (4)	10901.4 (4)	24033.6 (4)		
STA.SET= 17 CAT= FO						
DIESEL FUEL					.0	.0
STA.SET= 17 CAT= FO						
DIESEL FUEL & OIL					.0	.0
STA.SET= 17 CAT= FS						
CONTAMINATED DILUTION WATER	.C	.0	.0	.0		
MMH	.0	.0	.0	.0		
STA.SET= 17 CAT= OS						
CONTAMINATED DILUTION WATER	.0	.0	.0	.0		
N204	.0	.0	.0	.0		
SUBTOTAL FOR SET 17	908.5	2002.8	10901.4	24033.6	.0	.0
STA.SET= 18 CAT= HF						
HYDRAULIC FLUIDS	1.4 (5)	3.2 (5)	17.2 (5)	38.0 (5)	.0	.0
SUBTOTAL FOR SET 18	1.4	3.2	17.2	38.0	.0	.0
STA.SET= 19 CAT= AW						
TPS ADHESIVE, RTV 566/577	.4	.8	4.5	10.0	.0	.0
PHENYL METHYL POLYSILOXANE						
TIN OXIDE						
IRON OXIDE						
SILICON						
HARDENER						
STA.SET= 19 CAT= AW						
EA 911 EPOXY						
(CONT.)					.0	.0

TABLE 9 (CONT.) HAZARDOUS WASTE GENERATION FOR 1985

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPOXY						
ZINC CHROMATE						
ASBESTOS						
MERCAPTAN						
DIMETHYLAMINE						
STA.SET= 19 CAT= AW					.0	.0
EA 934 EPOXY						
EPOXY RESIN						
ASBESTOS						
STA.SET= 19 CAT= AW					.0	.0
EA 9309 EPOXY						
EPOXY RESIN						
GLASS FIBERS						
ACRYLONITRILE/BUTADIEN/STYRENE						
ASBESTOS						
POLYGLYCOL DIAMINE						
SILANE						
STA.SET= 19 CAT= CN					.0	.0
SPRAYCANS OF TPS SEALER						
FLUORINATED SOLVENT						
FREON 113						
STA.SET= 19 CAT= CN						
KOROPON PRIMER CONTAM CANS	2.3(6)	5.0(6)	27.2(6)	60.0(6)	.0	.0
BUTYL ACETATE						
METHYL ETHYL KETONE						
TOLUENE						
TALC - Mg SILICATES						
EPOXY RESIN						
STA.SET= 19 CAT= CN						
LACQUER SPRAY CANS	.9(7)	2.0(7)	10.9(7)	24.0(7)	.0	.0
PIGMENT SOLIDS						
VEHICLE SOLIDS						
TOLUENE						
XYLENE						
HYDROCARBON PROPELLANT						
PETROLEUM DISTILLATES						
STA.SET= 19 CAT= CN						
ISP CONTAM CUPS & WOOD STICKS	.2(8)	.5(8)	2.7(8)	6.0(8)	.0	.0
INSTANT SET POLYMER						
STA.SET= 19 CAT= CN						
MARSHALL STENCIL INK SPRAYCANS	.1(7)	.2(7)	1.1(7)	2.4(7)	.0	.0
XYLENE						

(CONT.)

TABLE 9 (CONT.) HAZARDOUS WASTE GENERATION FOR 1985 PAGE 3

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
NAPTHA						
OTHER MATERIALS						
STA.SET= 19 CAT= CN						
LACQUER SPRAYCANS	.7(7)	1.6(7)	8.7(7)	19.2(7)	.0	.0
PIGMENT SOLIDS						
VEHICLE SOLIDS						
TOLUENE						
XYLENE						
HYDROCARBON PROPELLANT						
PETROLEUM DISTILLATES						
STA.SET= 19 CAT= CN						
ENAMEL SPRAYCANS	1.4(7)	3.0(7)	16.3(7)	36.0(7)	.0	.0
STA.SET= 19 CAT= CN						
ZINC CHROMATE PRIMER CANS	1.4(7)	3.0(7)	16.3(7)	36.0(7)	.0	.0
STA.SET= 19 CAT= CN						
CONTAMINATED TARE CUPS					.0	.0
EA 911 EPOXY						
EA 934 EPOXY						
EA 9309 EPOXY						
STA.SET= 19 CAT= CR						
RAGS WITH SOLVENTS, GREASES	1.5(9)	3.3(9)	18.1(9)	40.0(9)	.0	.0
STA.SET= 19 CAT= CR						
SOLVENT-CONTAM CHEESECLOTH					.0	.0
ISOPROPYL ALCOHOL						
METHYL ETHYL KETONE						
1,1,1-TRICHLOROETHANE						
STA.SET= 19 CAT= CR						
MEK & IPA CONTAM CHEESECLOTH					.0	.0
METHYL ETHYL KETONE						
ISOPROPYL ALCOHOL						
STA.SET= 19 CAT= CR						
IPA CONTAMINATED CHEESECLOTH					.0	.0
ISOPROPYL ALCOHOL						
STA.SET= 19 CAT= CR						
TCE CONTAMINATED CHEESECLOTH					.0	.0
1,1,1-TRICHLOROETHANE						
STA.SET= 19 CAT= CR						
MEK CONTAMINATED CHEESECLOTH					.0	.0
METHYL ETHYL KETONE						

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR SOLID FILM LUBRIC CONT CHSCLTH					.0	.0
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR DICHLOROMETHANE CONT CHSECLTH					.0	.0
STA.SET= 19 CAT= CR CONTAM CLOTHES, CLOTH & DEBRIS KOROPON BASE PRIMER KOROPON ACTIVATOR BERYLLIUM DUST	1.5(10)	3.3(10)	18.1(10)	40.0(10)	.0	.0
STA.SET= 19 CAT= EW WASTEWATER FROM EEW&S	1009.4(4)	2225.3(4)	12112.7(4)	26704.0(4)		
STA.SET= 19 CAT= FS WASTEWATER FROM PAYLOAD/ORB MMH	181.4 18.1	400.0 40.0	2177.2 217.7	4800.0 480.0	.0	.0
STA.SET= 19 CAT= FS WASTE FUEL AND PRIMOL 355(11) HYDRAZINE & MMH	12.1 .6	26.7 1.3	145.1 7.3	320.0 16.0		
STA.SET= 19 CAT= HF VACUUM PUMP OIL TEXACO REGAL OIL 068	1.5	3.3	18.1	40.0	.0	.0
STA.SET= 19 CAT= HS FUEL SCRUBBER HYDRAZINE & MMH	846.7 16.9	1866.7 37.3	10160.4 203.2	22400.0 448.0	.0	.0
STA.SET= 19 CAT= HY HYDRAZINE	.0	.0	.0	.0	2494.7(12)	5500.0(12)
STA.SET= 19 CAT= HY HYDRAZINE	22.7	50.0	272.2	600.0	34.0(12)	75.0(12)
STA.SET= 19 CAT= IN POLYURETHANE FOAM	1.5	3.3	18.1	40.0	.0	.0

TABLE 9 (CONT.) HAZARDOUS WASTE GENERATION FOR 1985

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= IN ALUMACAST A/B MIXTURE POLYOXPROPLENE PENTAERYTHRITOL AROMATIC WHITE OIL INERT ALUMINIZED PARTICLES DIPHENYLMETHANE DIISOCYANATE POLYMERS OF DPM DIISOCYANATE	<.1	.1	.5	1.2	.0	.0
STA.SET= 19 CAT= IN INSTANT SET POLYMER SCRAPS DIPHENYL METHANE DIISOCYANATE POLY(OXALKYLENE)POLYETHER AROMATIC HYDROCARBONS	.6(13)	1.3(13)	7.3(13)	16.0(13)	.0	.0
STA.SET= 19 CAT= IN SILANE/ACETIC ACID RESIDUE METHYL TRIMETHOXYSILANE ACETIC ACID	.2	.3	1.8	4.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE	11.8	26.0	141.5	312.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE	3.0	6.7	36.3	80.0	.0	.0
STA.SET= 19 CAT= MH(14) MONOMETHYL HYDRAZINE	6.3(15)	13.8(15)	75.1(15)	165.6(15)	107.3(12)	236.5(12)
STA.SET= 19 CAT= MH(14) MONOMETHYL HYDRAZINE	6.3(15)	13.8(15)	75.1(15)	165.6(15)	148.3(12)	327.0(12)
STA.SET= 19 CAT= MH(14) MONOMETHYL HYDRAZINE	4.4(15)	9.8(15)	53.3(15)	117.6(15)	182.8(12)	403.0(12)
STA.SET= 19 CAT= MH(14) MONOMETHYL HYDRAZINE	13.9(15)	30.6(15)	166.6(15)	367.2(15)	.0	.0
STA.SET= 19 CAT= NH WASTEWATER WITH AMMONIA	12.1(15)	26.7(15)	145.1(15)	320.0(15)	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	1.8	4.0	21.8	48.0	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	3.3	7.2	39.2	86.4	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	11.4(15)	25.2(15)	137.2(15)	302.4(15)	163.1(12)	359.5(12)

TABLE 9 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1985

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	11.4[15]	25.2[15]	137.2[15]	302.4[15]	232.9[12]	513.5[12]
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	8.0[15]	17.5[15]	95.4[15]	210.4[15]	286.2[12]	631.0[12]
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	26.5[15]	58.4[15]	317.9[15]	700.8[15]	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	.0	.0	.0	.0	4082.3[12]	9000.0[12]
STA.SET= 19 CAT= OS DECONTAMINATE FROM PAYLOAD/ORB N204	96.8 .9	213.3 2.0	1161.2 10.9	2560.0 24.0	.0	.0
STA.SET= 19 CAT= OS WASTE OXIDIZER AND PRIMOL 355[11] N204	12.4 .9	27.3 2.0	148.8 10.9	328.0 24.0	.0	.0
STA.SET= 19 CAT= PA KOROPON PRMER CONT PNT BRUSHES BUTYL ACETATE TALC - Mg SILICATES EPOXY RESIN	6.0[16]	13.3[16]	72.6[16]	160.0[16]	.0	.0
STA.SET= 19 CAT= PA LACQUER #626486	.2[17]	.4[17]	2.4[17]	5.2[17]	.0	.0
STA.SET= 19 CAT= PA CONTAMINATED BRUSHES ORGANIC ZINC PRIMER ZINC CHROMATE PRIMER	.6[16]	1.3[16]	7.3[16]	16.0[16]	.0	.0
STA.SET= 19 CAT= PA ORGANIC ZINC PRIMER ZINC DUST BARYTES MOLYBDATE ORANGE SILICA HIGH MOLECULAR WEIGHT EPOXY CELLOSOLVE ACETATE TOLUENE METHYL ETHYL KETONE	1.9[18]	4.2[18]	22.7[18]	50.0[18]	.0	.0
STA.SET= 19 CAT= PA CONTAMINATED PAINT BRUSHES EA 911 EPOXY (CONT.)	.6[16]	1.3[16]	7.3[16]	16.0[16]	.0	.0

TABLE 9 (CONT.) HAZARDOUS WASTE GENERATION FOR 1985

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EA 934 EPOXY						
EA 9309 EPOXY						
STA.SET= 19 CAT= SO						
DOPE & LACQUER THINNER	.3	.6	3.3	7.2	.0	.0
ALIPHATIC NAPTHA	<.1	.1	.5	1.2		
ESTER OR KETONE	.1	.3	1.5	3.2		
ISO- OR n-BUTYL ACETATE	.1	.2	.9	2.0		
ISO- OR n-BUTYL ALCOHOL	<.1	.1	.4	.8		
STA.SET= 19 CAT= SW						
WASHWATER WITH MEK	14.1	31.2	169.6	374.0	.0	.0
METHYL ETHYL KETONE	2.0	4.5	24.5	54.0		
SUBTOTAL FOR SET 19	2339.5	5157.8	28074.3	61893.6	7731.7	17045.5
STA.SET= 21 CAT= EW						
WASTEWATER FROM EEW&S	908.5[4]	2002.8[4]	10901.[illegible][4]	24033.6[4]		
STA.SET= 21 CAT= FS						
WASTEWATER WITH MMH	36.0	79.3	431.8	9[illegible]2.0	.0	.0
MMH	3.3	7.3	39.9	88.0		
STA.SET= 21 CAT= HS						
FUEL SCRUBBER	121.0	266.7	1451.5	3200.0	.0	.0
MMH	2.2	4.9	26.5	58.4		
STA.SET= 21 CAT= IN						
TILE REPAIR FOAM	1.5	3.3	18.1	40.0	.0	.0
POLYURETHANE	1.5	3.3	18.1	40.0		
STA.SET= 21 CAT= MH						
MONOMETHYL HYDRAZINE	.0	.0	.0	.0		
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	6531.7[19]	14400.0[19]
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	5.0	11.0	59.9	132.0	.0	.0
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	17.1	37.7	205.0	452.0	.0	.0
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	4898.8[20]	10800.0[20]
STA.SET= 21 CAT= OS						
WASTEWATER WITH OXIDIZER	24.3	53.5	291.0	641.6	.0	.0

(CONT.)

TABLE 9 (CONT.) HAZARDOUS WASTE GENERATION FOR 1985

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
N2O4	.2	.4	2.2	4.8		
STA.SET= 21 CAT= SW						
WASTEWATER WITH MEK	14.1	31.1	169.5	373.6	.0	.0
METHYL ETHYL KETONE	2.0	4.5	24.3	53.6		
STA.SET= 21 CAT= WP						
WASTE SEALS, FILTERS, ETC.	1.5(21)	3.3(21)	18.1(21)	40.0(21)	.0	.0
SUBTOTAL FOR SET 21	1128.9	2488.7	13546.4	29864.8	11430.5	25200.0
STA.SET= 23 CAT= EW						
WASTEWATER FROM EEW&S	1009.4	2225.3	12112.7	26704.0		
STA.SET= 23 CAT= FS						
HYDRAZINE-CONTAM. WASTEWATER	189.3	417.3	2271.6	5008.0		
HYDRAZINE	9.4	20.7	112.5	248.0		
STA.SET= 23 CAT= FS						
HYDRAZINE-CONTAM. CLNUP WATER	63.0	139.0	756.6	1668.0		
HYDRAZINE	.7	1.5	8.3	18.4		
STA.SET= 23 CAT= FS						
WASTEWATER FROM PPR	757.0	1669.0	9084.5	20028.0		
HYDRAZINE						
STA.SET= 23 CAT= FS						
PRIMOL 355(11)	113.5	250.3	1362.6	3004.0		
HYDRAZINE						
MMH						
STA.SET= 23 CAT= HF						
HYDRAULIC FLUIDS	131.2	289.3	1574.9	3472.0	.0	.0
TETRAORTHOCRESOL PHOSPHATE	131.2	289.3	1574.9	3472.0		
STA.SET= 23 CAT= HS						
HYDRAZINE & MMH SCRUBBER	252.3(18)	556.3(18)	3028.2(18)	6676.0(18)	.0	.0
HYDRAZINE	5.6	12.3	67.1	148.0		
MMH	4.4	9.7	52.6	116.0		
STA.SET= 23 CAT= HY						
HYDRAZINE	69.4	153.0	832.8	1836.0	.0	.0
STA.SET= 23 CAT= HY						
LBM PROPELLANT	.0	.0	.0	.0	39689.1(22)	87500.0(22)
PARAHYDRAZINE	.0	.0	.0	.0		

(CONT.)

TABLE 5 (CONT.) HAZARDOUS WASTE GENERATION FOR 1985 PAGE 9

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
UNSYM DIMETHYLHYDRAZINE	.0	.0	.0	.0		
STA.SET= 23 CAT= HY						
HYDRAZINE	.0	.0	.0	.0	2712.7[22]	5980.5[22]
STA.SET= 23 CAT= IN						
K5NA INSULATION	3.5	7.7	41.7	92.0	.0	.0
BUTYL GLYCIDYL ETHER						
EPOXY RESINS, UNCURED						
STA.SET= 23 CAT= MH						
MONOMETHYL HYDRAZINE	110.2	243.0	1322.7	2916.0	.0	.0
STA.SET= 23 CAT= MH						
MONOMETHYL HYDRAZINE	.0	.0	.0	.0	6026.2[22]	13285.5[22]
STA.SET= 23 CAT= NH						
AMMONIA	.0	.0	.0	.0	47.2[22]	104.0[22]
STA.SET= 23 CAT= NO						
NITROGEN TETROXIDE	61.1	134.8	733.5	1617.2	.0	.0
STA.SET= 23 CAT= NO						
LBM OXIDIZER	.0	.0	.0	.0	39689.1[22]	87500.0[22]
NITROGEN TETROXIDE	.0	.0	.0	.0		
STA.SET= 23 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	14064.9[22]	31008.0[22]
STA.SET= 23 CAT= OS						
N204 CONTAM. CLEANUP WATER	37.8	83.3	453.6	1000.0		
NITROGEN TETROXIDE	.4	.8	4.5	10.0		
STA.SET= 23 CAT= OS						
N204 CONTAM. WASTEWATER	126.1	278.0	1513.2	3336.0		
NITROGEN TETROXIDE	9.4	20.7	112.5	248.0		
STA.SET= 23 CAT= OS						
PRIMOL 355[11]	113.5	250.3	1362.6	3004.0		
N204						
STA.SET= 23 CAT= PS						
SRB PROPELLANT SPILL[23]	.0	.0	.0	.0	504301.3[24]	1111800.0[24]
AMMONIUM PERCHLORATE	.0	.0	.0	.0		
ALUMINUM POWDER	.0	.0	.0	.0		
PBAN BINDER	.0	.0	.0	.0		
HTPB BINDER	.0	.0	.0	.0		
IRON OXIDE	.0	.0	.0	.0		
STA.SET= 23 CAT= QW						
DELUGE WATER	189298.2	417333.3	2271578.5	5008000.0	.0	.0
(CONT.)						

TABLE 9 (CONT.) HAZARDOUS WASTE GENERATION FOR 1985 PAGE 10

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
ALUMINUM OXIDE	1.1	2.5	13.4	29.6		
AMMONIA	.1	.2	.9	2.0		
HYDROCHLORIC ACID	120.8	266.3	1449.7	3196.0		
ORGANIC CARBON	1.1	2.5	13.6	30.0		
STA.SET= 23 CAT= SO						
SOLVENT MIXTURE	97.2(25)	214.2(25)	1165.9(25)	2570.4(25)	.0	.0
FREON TMC/MF/TC						
SYM. TETRACHLOROETHANE						
STA.SET= 23 CAT= SO						
CONTAMINATED SOLVENTS	88.3(26)	194.7(26)	1059.6(26)	2336.0(26)	.0	.0
STA.SET= 23 CAT= SW						
SOLVENT WASTEWATER UNSPEC.	138.8(18)(25)	306.0(18)(25)	1665.6(18)(25)	3672.0(18)(25)	.0	.0
STA.SET= 23 CAT= SW						
CONTAMINATED WASTEWATER	315.4(18)	695.3(18)	3784.8(18)	8344.0(18)	.0	.0
SOLVENTS						
CHLORINATED RUBBER						
ZINC PRIMER						
SUBTOTAL FOR SET 23	192975.4	425440.3	2315705.0	5105283.0	102229.2	225378.0
STA.SET= 31 CAT= AL						
SURFACTANT					.0	.0
NaOH						
SODIUM TRIPOLYPHOSPHATE						
STA.SET= 31 CAT= AW						
EA 934 EPOXY ADHESIVE	5.3(26)(27)	11.7(26)(27)	63.5(26)(27)	140.0(26)(27)	.0	.0
EPOXY RESIN	2.3	5.0	27.2	60.0		
ASBESTOS	.6	1.3	7.3	16.0		
FILLERS	1.1	2.3	12.7	28.0		
POLYAMIDE	1.2	2.7	14.5	32.0		
DIETHYLENETRIAMINE	.2	.3	1.8	4.0		
STA.SET= 31 CAT= CA						
CONTAMINATED AIR FILTERS	7.6	16.7	90.7	200.0	.0	.0
STA.SET= 31 CAT= CA						
CHARCOAL FILTER WASTES					.0	.0
STA.SET= 31 CAT= CA						
CONTAMINATED AIR FILTERS	7.6	16.7	90.7	200.0	.0	.0
STA.SET= 31 CAT= CN						
BOSTIK PRIMER PAINT CANS	2.3(6)	5.0(6)	27.2(6)	60.0(6)	.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 31 CAT= CN BOSTIK TOPCOAT PAINT CANS	6.8[6]	15.0[6]	81.6[6]	180.0[6]	.0	.0
STA.SET= 31 CAT= CN RUSTOLEUM PRIMER PAINT CANS	.3[6]	.7[6]	3.6[6]	8.0[6]	.0	.0
STA.SET= 31 CAT= CN RUSTOLEUM TOPCOAT PAINT CANS	.3[6]	.7[6]	3.6[6]	8.0[6]	.0	.0
STA.SET= 31 CAT= CN MSA-1 EMPTY CONTAINERS	151.2[28]	333.3[28]	1814.4[28]	4000.0[28]	.0	.0
STA.SET= 31 CAT= CN K5NA CONTAINERS	1.1	2.5	13.6	30.0	.0	.0
STA.SET= 31 CAT= CN K5NA & MTA-2 PACKING MATERIALS	756.0[28]	1666.7[28]	9071.8[28]	20000.0[28]	.0	.0
STA.SET= 31 CAT= CR SOLVENT CONTAMINATED RAGS	1.5[9]	3.3[9]	18.1[9]	40.0[9]	.0	.0
STA.SET= 31 CAT= CR ALODINE CONTAMINATED RAGS	.8[9]	1.7[9]	9.1[9]	20.0[9]	.0	.0
STA.SET= 31 CAT= CR RYMPLE CLOTHS	1.5[9]	3.3[9]	18.1[9]	40.0[9]	.0	.0
STA.SET= 31 CAT= CR PAINT DROP CLOTHS	2.3[9]	5.0[9]	27.2[9]	60.0[9]	.0	.0
STA.SET= 31 CAT= EW WASTEWATER FROM EEW&S	403.8[4]	890.1[4]	4845.1[4]	10681.6[4]		
STA.SET= 31 CAT= FO FUEL AND OIL SPILLS	.0	.0	.0	.0		
STA.SET= 31 CAT= FO FUEL & OIL WASTES	12.7	28.0	152.4	336.0	.0	.0
STA.SET= 31 CAT= FS PRIMOL 355[11]	.0	.0	.0	.0		
STA.SET= 31 CAT= HS SCRUBBER EFFLUENT	12.5[18]	27.7[18]	150.6[18]	332.0[18]	.0	.0
STA.SET= 31 CAT= HY HYDRAZINE	36.5	80.4	437.8	965.2	.0	.0
STA.SET= 31 CAT= IN MSA-1 (CURED)[29]	30.2[25]	66.7[25]	362.9[25]	800.0[25]	.0	.0

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPICHLORHYDRIN/BGE	12.1	26.7	145.3	320.4		
GLASS ECOSPHERES	3.6	7.9	42.8	94.4		
PHENOLIC MICROSPHERES	10.7	23.6	128.6	283.6		
GLASS FIBERS	1.3	2.9	16.0	35.2		
BENTONE 27	1.0	2.2	12.2	26.8		
METHYLENE DIANILINE	1.1	2.3	12.7	28.0		
m-PHENYLENE DIAMINE	.4	1.0	5.3	11.6		
STA.SET= 31 CAT= IN						
MSA-1, PART A (UNMIXED)(30)					.0	.0
METHYLENE CHLORIDE						
EPICHLORHYDRIN/BGE						
STA.SET= 31 CAT= IN						
MSA-1, PART B (UNMIXED)(30)					.0	.0
METHYLENE CHLORIDE						
PERCHLOROETHYLENE						
METHYLENE DIANILINE						
m-PHENYLENE DIAMINE						
ETHYL ALCOHOL						
PHENOLIC MICROSPHERES						
GLASS ECOSPHERES						
GLASS FIBERS						
BENTONE 27						
STA.SET= 31 CAT= IN						
MTA-2 (CURED)(29)	15.1	33.3	181.4	400.0	.0	.0
EPICHLORHYDRIN/BGE	4.7	10.3	56.1	123.6		
LP-3, POLYSULFIDE LIQ POLYMER	4.7	10.3	56.1	123.6		
MDA & mPDA	1.9	4.1	22.3	49.2		
STANNOUS OCTOATE	.2	.4	2.2	4.8		
PHENOLIC MICROSPHERES	3.7	8.2	44.8	98.8		
STA.SET= 31 CAT= IN						
MTA-2 (UNMIXED)(30)	4.5	10.0	54.4	120.0	.0	.0
EPICHLORHYDRIN/BGE	1.4	3.1	16.9	37.2		
LP-3, POLYSULFIDE LIQ POLYMER	1.4	3.1	16.9	37.2		
MDA & mPDA	.6	1.2	6.7	14.8		
STANNOUS OCTOATE	.1	.1	.7	1.6		
PHENOLIC MICROSPHERES	1.1	2.5	13.4	29.6		
METHYLENE CHLORIDE						
PERCHLOROETHYLENE						
STA.SET= 31 CAT= IN						
K5NA	2.4	5.3	29.0	64.0	.0	.0
BUTYL GLYCIDYL ETHER						
EPOXY RESINS						
STA.SET= 31 CAT= IN						
INSULATION AND PAPER					.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 31 CAT= PA						
BOSTIK EPOXY PRIMER	4.1	9.0	49.0	108.0	.0	.0
EPOXY RESIN	.5	1.2	6.4	14.0		
AMINE CURING AGENT	.1	.2	1.1	2.4		
TITANIUM DIOXIDE	.1	.2	1.1	2.4		
CHROMATE PIGMENTS	.2	.4	2.2	4.8		
INERT PIGMENTS	.6	1.3	6.9	15.2		
SUSPENSION & FLOW CONTROL ADDI	<.1	<.1	.2	.4		
SOLVENTS	2.4	5.4	29.4	64.8		
STA.SET= 31 CAT= PA						
BOSTIK EPOXY TOPCOAT	5.6	12.3	67.1	148.0	.0	.0
EPICHLORHYDRIN/BISPHENOL A	1.4	3.0	16.3	36.0		
AMINE CURING AGENT	.2	.5	2.5	5.6		
COLOR PIGMENT	1.1	2.5	13.6	30.0		
SUSPENSION & FLOW CONTROL ADDI	.1	.2	.9	2.0		
SOLVENTS PHOTOCHEM REACTIVE	.5	1.2	6.4	14.0		
SOLVENTS NONPHOTOCHEM REACTIVE	2.3	5.0	27.2	60.0		
STA.SET= 31 CAT= PA						
RUSTOLEUM PRIMER	1.2	2.7	14.5	32.0	.0	.0
SILICATES	.2	.4	2.4	5.2		
YELLOW IRON OXIDE	.1	.2	1.1	2.4		
TITANIUM DIOXIDE	<.1	.1	.4	.8		
CALCIUM BOROSILICATE	.2	.5	2.7	6.0		
BENTONITE	<.1	<.1	.1	.2		
LINSEED PHENOLIC ALKYL RESIN	.2	.5	2.9	6.4		
ALIPHATIC HYDROCARBONS	.4	.9	4.7	10.4		
DRIERS AND ADDITIVES	<.1	.1	.4	.8		
STA.SET= 31 CAT= PA						
RUSTOLEUM TOPCOAT	1.2	2.7	14.5	32.0	.0	.0
SILICATES	.4	.9	4.7	10.4		
TITANIUM DIOXIDE	.2	.5	2.5	5.6		
BENTONITE CLAY	<.1	<.1	.1	.2		
TINTING COLORS	<.1	.1	.4	.8		
ALKYL RESIN	.2	.5	2.5	5.6		
ALIPHATIC HYDROCARBONS	.4	.8	4.4	9.6		
DRIERS & ADDOTIVES	<.1	<.1	.2	.4		
STA.SET= 31 CAT= PA						
GACOFLEX	5.9	13.0	70.8	156.0	.0	.0
TITANIUM DIOXIDE	.4	.9	4.9	10.8		
CLAY	.5	1.0	5.6	12.4		
HYPALON	.6	1.3	7.1	15.6		
HYDROCARBON RESIN	.1	.3	1.5	3.2		
PERCHLOROETHYLENE	2.8	6.1	33.2	73.2		
1,1,1-TRICHLOROETHANE	1.5	3.3	17.8	39.2		

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPOXIDIZED SOYBEAN OIL	.1	.1	.7	1.6		
STA.SET= 31 CAT= PA PAINT-SPILL ABSORBANT	.0	.0	.0	.0		
STA.SET= 31 CAT= PW ALODINE CONTAMINATED WASTEWATR	50.5(18)	111.3(18)	606.0(18)	1336.0(18)	.0	.0
CHROMIC ACID	.9(31)	2.0(31)	10.7(31)	23.6(31)		
FERRICYANIDE SALT	.5	1.1	6.0	13.2		
COMPLEX FLUORIDE SALT	<.1	<.1	.2	.4		
STA.SET= 31 CAT= SO PERCHLOROETHYLENE	.2	.5	2.5	5.6	.0	.0
STA.SET= 31 CAT= SO TRICHLOROETHANE	.2	.4	2.0	4.4	.0	.0
STA.SET= 31 CAT= SO FREON 113	.2	.4	2.4	5.2	.0	.0
STA.SET= 31 CAT= SO MSA-1 CONTAMINATED MECI	501.8	1106.3	6021.9	13276.0	.0	.0
STA.SET= 31 CAT= SO MSA-1 CONTAM PERCHLOROETHYLENE	617.3	1361.0	7408.0	16332.0	.0	.0
STA.SET= 31 CAT= SO PERCHLOROETHYLENE	92.5	204.0	1110.4	2448.0	.0	.0
STA.SET= 31 CAT= SO TRICHLOROETHANE	27.2	60.0	326.6	720.0	.0	.0
STA.SET= 31 CAT= SO METHYLENE CHLORIDE	85.3	188.0	1023.3	2256.0	.0	.0
STA.SET= 31 CAT= SO MTA-2 CONTAMINATED SOLVENTS	176.6(26)	389.3(26)	2119.2(26)	4672.0(26)	.0	.0
STA.SET= 31 CAT= SO BOSTIK CONTAMINATED SOLVENTS	88.3(26)	194.7(26)	1059.6(26)	2336.0(26)	.0	.0
STA.SET= 31 CAT= SO RUSTOLEUM CONTAMINATED SOLVENT	88.3(26)	194.7(26)	1059.6(26)	2336.0(26)	.0	.0
SUBTOTAL FOR SET 31	3208.7	7074.0	38504.4	84888.0	.0	.0
STA.SET= 32 CAT= BA LITHIUM STORAGE BATTERIES	8.2	18.0	98.0	216.0	.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 32 CAT= BA						
SILVER-ZINC STORAGE BATTERIES	13.6	30.0	163.3	360.0	.0	.0
STA.SET= 32 CAT= BA						
POTASSIUM HYDROXIDE SOLUTION	2.9[18]	6.4[18]	34.8[18]	76.8[18]	.0	.0
STA.SET= 32 CAT= CB						
HYDRAZINE-CONTAMINATED WATER	36.3[19]	80.0[18]	435.4[18]	960.0[18]	.0	.0
STA.SET= 32 CAT= CS						
CONTAMINATED SEAWATER[32]	.0	.0	.0	.0		
STA.SET= 32 CAT= CS						
CONTAMINATED SEAWATER[32]	4838.3	10666.7	58059.5	128000.0	.0	.0
STA.SET= 32 CAT= CW						
SRB FWD SKT CLEANING WASTES					.0	.0
STA.SET= 32 CAT= EW						
WASTEWATER FROM EEW&S	201.9[4]	445.1[4]	2422.5[4]	5340.8[4]		
STA.SET= 32 CAT= FO						
BILGE WASTES					.0	.0
STA.SET= 32 CAT= FO						
DIESEL FUEL & OIL SPILLS	.0	.0	.0	.0		
STA.SET= 32 CAT= FS						
WASTE FUEL & PRIMOL 355[11]	.0	.0	.0	.0		
HYDRAZINE	.0	.0	.0	.0		
STA.SET= 32 CAT= HS						
HYDRAZINE SCRUBBER EFFLUENT	60.5[18]	133.3[18]	725.7[18]	1600.0[18]	.0	.0
HYDRAZINE	.5	1.2	6.5	14.4		
STA.SET= 32 CAT= HY						
HYDRAZINE	13.7	30.2	164.2	362.0	.0	.0
STA.SET= 32 CAT= IN						
INSULATION WASTES, SOLID[33]	241.9[34]	533.3[34]	2903.0[34]	6400.0[34]	.0	.0
MSA-1 INSULATION						
MTA-2 INSULATION						
K5NA INSULATION						
PR-855 INSULATION						
STA.SET= 32 CAT= IN						
INSULATION CONTAM FILTERS	1.5[21]	3.3[21]	18.1[21]	40.0[21]	.0	.0
STA.SET= 32 CAT= IW						
INSULATION-CONTAMINATED WATER[33]	61763.8[18]	136166.7[18]	741166.0[18]	1634000.0[18]	.0	.0

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
MSA-1 INSULATION						
MTA-2 INSULATION						
K5NA INSULATION						
PR-855 INSULATION						
STA.SET= 32 CAT= PR						
PRESERVATIVE CHEMICALS					.0	.0
PROTECTIVE LUBRICANTS						
STA.SET= 32 CAT= PS						
SRB SOLID PROPELLANT	.0	.0	.0	.0	78.5[24]	173.0[24]
AMMONIUM PERCHLORATE	.0	.0	.0	.0		
ALUMINUM POWDER	.0	.0	.0	.0		
FERRIC OXIDE	.0	.0	.0	.0		
POLYMER & EPOXY RESIN	.0	.0	.0	.0		
STA.SET= 32 CAT= SB						
DETERGENT WASHWATER[35]	11611.9	25600.0	139342.8	307200.0	.0	.0
STA.SET= 32 CAT= SB						
POTABLE RINSE WATER	40157.8	88533.3	481894.0	1062400.0	.0	.0
STA.SET= 32 CAT= SB						
DEIONIZED RINSE WATER	18796.8	41440.0	225561.2	497280.0	.0	.0
STA.SET= 32 CAT= SI						
SRB RINSE WATER	7257.4	16000.0	87089.3	192000.0	.0	.0
STA.SET= 32 CAT= SO						
SOLVENTS	3.5[26]	7.8[26]	42.5[26]	93.6[26]	.0	.0
FREON TMC/TM						
SOLVENTS, UNSPECIFIED						
SUBTOTAL FOR SET 32	145010.0	319694.1	1740120.5	3836329.0	.0	.0
STA.SET= 33 CAT= CA						
AIR FILTERS	1.5[21]	3.3[21]	18.1[21]	40.0[21]	.0	.0
STA.SET= 33 CAT= EW						
WASTEWATER FROM EEW&S	63.0	139.0	756.6	1668.0		
STA.SET= 33 CAT= HF						
HYDRAULIC FLUIDS					.0	.0
SUBTOTAL FOR SET 33	64.6	142.3	774.7	1708.0	.0	.0

TABLE 9 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1985

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 99 CAT= AW						
GX-6300 ABLATOR ADHESIVE	2.0	4.3	23.6	52.0	.0	.0
RESIN STM L 663	.2	.4	2.4	5.2		
RESIN STM L 664	.7	1.6	8.7	19.2		
SILICA POWDER	.1	.1	.7	1.6		
CARBON POWDER	.1	.1	.7	1.6		
CURING AGENT L 663	.1	.2	.9	2.0		
CURING AGENT L 664	<.1	<.1	.2	.4		
HEPTANE	.8	1.7	9.4	20.8		
XYLENE	<.1	.1	.5	1.2		
STA.SET= 99 CAT= AW						
ISOCHEM POLYESTER RESIN ADHESV	2.0	4.3	23.6	52.0	.0	.0
STYRENE						
MEK PEROXIDE CATALYST						
DIMETHYL PHTHALATE						
STA.SET= 99 CAT= CA						
FILTER					.0	.0
STA.SET= 99 CAT= CN						
SOLVENT CONTAMINATED CONTAINER	.8(28)	1.7(28)	9.1(28)	20.0(28)	.0	.0
SOLVENTS(36)						
STA.SET= 99 CAT= CN						
PRIMER CONTAMINATED CONTAINERS	.1(28)	.2(28)	1.3(28)	2.8(28)	.0	.0
STA.SET= 99 CAT= CN						
ADHESIVE CONTAMINATED CONTAINR	.1(28)	.2(28)	1.3(28)	2.8(28)	.0	.0
STA.SET= 99 CAT= CN						
SOLVENT CONTAINERS					.0	.0
STA.SET= 99 CAT= CN						
POUR FOAM CONTAINERS	7.6(28)	16.7(28)	90.7(28)	200.0(28)	.0	.0
STA.SET= 99 CAT= CN						
ABLATOR CONTAMINATED CONTAINER	.1(28)	.2(28)	1.3(28)	2.8(28)	.0	.0
STA.SET= 99 CAT= CR						
SOLVENT CONTAMINATED RAGS	1.5(9)	3.3(9)	18.1(9)	40.0(9)	.0	.0
STA.SET= 99 CAT= CR						
ADHESIVE CONTAMINATED RAGS	1.5(9)	3.3(9)	18.1(9)	40.0(9)	.0	.0
STA.SET= 99 CAT= CR						
EPOXY PRIMER-CONTAMINATED RAGS	.8(9)	1.7(9)	9.1(9)	20.0(9)	.0	.0
STA.SET= 99 CAT= IN						
BX-250 FOAM (SOFI)	39.3	86.7	471.7	1040.0	.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
DIPHENYL METHANE DIISOCYANATE	9.8	21.7	117.9	260.0		
FREON 11	6.4	14.0	76.2	168.0		
AMINES	3.5	7.7	41.7	92.0		
POLYOLS						
SUPER MEK PEROXIDE						
POLYESTER RESIN						
DIMETHYL PHTHALATE						
STA.SET= 99 CAT= IN						
FOUR FOAM (MIXED)[29]	41.6[37]	91.7[37]	498.9[37]	1100.0[37]	.0	.0
POLYURETHANE						
STA.SET= 99 CAT= IN						
POUR FOAM PART A (UNMIXED)[30]	2.1	4.7	25.4	56.0	.0	.0
DIPHENYL METHANE DIISOCYANATE	1.1	2.3	12.7	28.0		
FREON 11	.7	1.5	8.2	18.0		
POLYOLS, AMINES	.4	.8	4.5	10.0		
STA.SET= 99 CAT= IN						
POUR FOAM PART B (UNMIXED)[30]	2.1	4.7	25.4	56.0	.0	.0
FREON 11	.4	.9	5.1	11.2		
AMINE CATALYST	<.1	.1	.5	1.2		
POLYETHER POLYOL BLEND	1.6	3.6	19.8	43.6		
STA.SET= 99 CAT= IN						
POUR FOAM CONTAMINATED PAPER	.5[28]	1.1[28]	6.0[28]	13.2[28]	.0	.0
STA.SET= 99 CAT= IN						
SUPER LIGHT ABLATOR (I)	1.5	3.3	18.1	40.0	.0	.0
RESIN L664, PT A	.9	2.0	10.7	23.6		
SILICA FIBERS	.1	.2	1.1	2.4		
CORK	.2	.4	2.2	4.8		
PHENOLIC MICROSPHERES	<.1	.1	.5	1.2		
SILICA MICROSPHERES	.2	.5	2.5	5.6		
CURING AGENT	.1	.2	1.1	2.4		
STA.SET= 99 CAT= IN						
SUPER LIGHT ABLATOR (II)	1.5	3.3	18.1	40.0	.0	.0
RESIN STM L664, PT A	.5	1.0	5.4	12.0		
CARBON POWDER						
SILICA FIBERS						
CORK						
SILICA MICROSPHERES						
PHENOLIC MICROSPHERES						
CURING AGENT STM L664, PT B	.3	.6	3.1	6.8		
STA.SET= 99 CAT= IN						
POUR FOAM "TRIMMINGS"	1.5	3.3	18.1	40.0	.0	.0
POLYURETHANE						

TABLE 9 (CONT.) HAZARDOUS WASTE GENERATION FOR 1985 PAGE 19

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 99 CAT= PA EPOXY PRIMER METHYLENE ISOBUTYL KETONE XYLENE CYCLOHEXANONE CHROMATES INORGANIC PIGMENTS N-BUTANOL TOLUENE AMINO SILANE METHYL ETHYL KETONE	<.1 (27)	<.1 (27)	.2 (27)	.4 (27)	.0	.0
STA.SET= 99 CAT= PA D.C. 1200 VM AND P NAPTHA ORGANOMETALLIC SALTS	<.1 (27)	<.1 (27)	.2 (27)	.4 (27)	.0	.0
STA.SET= 99 CAT= SO FREON TMC	<.1 (27)	.1 (27)	.5 (27)	1.2 (27)	.0	.0
STA.SET= 99 CAT= SO 1,1,1-TRICHLOROETHANE	<.1 (27)	.1 (27)	.5 (27)	1.2 (27)	.0	.0
STA.SET= 99 CAT= SO MEK & CELLOSOLVE	4.1	9.0	48.8	107.6	.0	.0
STA.SET= 99 CAT= SO HEPTANE	25.0	55.2	300.3	662.0	0	.0
STA.SET= 99 CAT= SO CELLOSOLVE ACETATE	35.7	78.7	428.2	944.0	.0	.0
STA.SET= 99 CAT= SO METHYL ETHYL KETONE	29.5	65.[illegible]	353.6	779.6	.0	.0
STA.SET= 99 CAT= SR SOLVENT REDUCER	.2	.4	2.2	4.8	.0	.0
METHYL ETHYL KETONE	.1	.3	1.5	3.2		
CYCLOHEXANONE	.1	.1	.7	1.6		
STA.SET= 99 CAT= SW SOLVENT CONTAMINATED WATER	27.0	59.5	324.0	714.4	.0	.0
SUBTOTAL FOR SET 99	228.0	502.8	2736.6	6033.2	.0	.0
TOTAL FOR ALL SETS	346657.3	764252.6	4159888.0	9171032.0	121391.3	267623.5

TABLE 9 (CONT.)
SUMMARY BY CATEGORY

HAZARDOUS WASTE GENERATION FOR 1985

CATEGORY	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
SO	2753.8	6071.2	33045.8	72854.0	.0	.0
EW	4504.4	9930.5	54052.3	119165.6	.0	.0
FO	12.7	28.0	152.4	336.0	.0	.0
FS	1352.5	2981.7	16229.4	35780.0	.0	.0
OS	410.9	905.8	4930.3	10869.6	.0	.0
HF	134.2	295.8	1610.2	3550.0	.0	.0
AW	9.6	21.2	115.2	254.0	.0	.0
CN	933.6	2058.[illegible]	11202.8	24698.0	.0	.0
CR	12.9	28.3	154.2	340.0	.0	.0
HS	1293.0	2850.7	15516.4	34208.0	.0	.0
HY	142.2	313.6	1706.9	3763.2	44430.6	99055.5
IN	393.2	866.9	4718.4	10402.4	.0	.0
MH	155.9	343.7	1870.6	4124.0	6464.6	14252.0
NH	12.1	26.7	145.1	320.0	47.2	104.0
NO	145.6	321.0	1747.0	3851.6	65050.2	143412.0
PA	27.4	60.3	328.4	724.0	.0	.0
SW	509.5	1123.2	6113.5	13478.0	.0	.0
WP	1.5	3.3	18.1	40.0	.0	.0
PS	.0	.0	.0	.0	504179.0	1111971.0
QW	189298.2	417333.3	2271578.5	5008000.0	.0	.0
AL	.0	.0	.0	.0	.0	.0
CA	16.6	36.7	199.6	440.0	.0	.0
PW	50.5	111.3	606.0	1336.0	.0	.0
BA	24.7	54.4	296.1	652.0	.0	.0
CB	36.3	80.0	435.4	960.0	.0	.0
CS	4838.3	10666.7	58059.5	128000.0	.0	.0
CW	.0	.0	.0	.0	.0	.0
IW	61763.8	136166.7	741166.0	1634000.0	.0	.0
PR	.0	.0	.0	.0	.0	.0
SB	70566.5	155573.3	846798.0	1866800.0	.0	.0
SI	7257.4	16000.0	87089.3	192000.0	.0	.0
SR	.2	.4	2.2	4.0	.0	.0

* For footnotes, see Table 8.

TABLE 10. HAZARDOUS WASTE GENERATION FOR 1986 *

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILLGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 0[2] CAT= SO						
CONTAMINATED FREON	1188.4[3]	2620.0[3]	14260.9[3]	31440.0[3]	.0	.0
SUBTOTAL FOR SET 0	1188.4	2620.0	14260.9	31440.0	.0	.0
STA.SET= 17 CAT= EW						
WASTEWATER FROM EEW&S	1362.7[4]	3004.2[4]	16352.1[4]	36050.4[4]		
STA.SET= 17 CAT= FO						
DIESEL FUEL					.0	.0
STA.SET= 17 CAT= FO						
DIESEL FUEL & OIL					.0	.0
STA.SET= 17 CAT= FS						
CONTAMINATED DILUTION WATEP	.0	.0	.0	.0		
MMH	.0	.0	.0	.0		
STA.SET= 17 CAT= OS						
CONTAMINATED DILUTION WATER	.0	.0	.0	.0		
N204	.0	.0	.0	.0		
SUBTOTAL FOR SET 17	1362.7	3004.2	16352.1	36050.4	.0	.0
STA.SET= 18 CAT= HF						
HYDRAULIC FLUIDS	2.2[5]	4.8[5]	25.9[5]	57.0[5]	.0	.0
SUBTOTAL FOR SET 18	2.2	4.8	25.9	57.0	.0	.0
STA.SET= 19 CAT= AW						
TPS ADHESIVE, RTV 566/577	.6	1.3	6.8	15.0	.0	.0
PHENYL METHYL POLYSILOXANE						
TIN OXIDE						
IRON OXIDE						
SILICON						
HARDENER						
STA.SET= 19 CAT= AW						
EA 911 EPOXY						
(CONT.)					.0	.0

TABLE 10 (CONT.) HAZARDOUS WASTE GENERATION FOR 1986 PAGE 2

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPOXY						
ZINC CHROMATE						
ASBESTOS						
MERCAPTAN						
DIMETHYLAMINE						
STA.SET= 19 CAT= AW						
EA 934 EPOXY					.0	.0
EPOXY RESIN						
ASBESTOS						
STA.SET= 19 CAT= AW						
EA 9309 EPOXY					.0	.0
EPOXY RESIN						
GLASS FIBERS						
ACRYLONITRILE/BUTADIEN/STYRENE						
ASBESTOS						
POLYGLYCOL DIAMINE						
SILANE						
STA.SET= 19 CAT= CN						
SPRAYCANS OF TPS SEALER					.0	.0
FLUORINATED SOLVENT						
FREON 113						
STA.SET= 19 CAT= CN						
KOROPON PRIMER CONTAM CANS	3.4(6)	7.5(6)	40.8(6)	90.0(6)	.0	.0
BUTYL ACETATE						
METHYL ETHYL KETONE						
TOLUENE						
TALC - Mg SILICATES						
EPOXY RESIN						
STA.SET= 19 CAT= CN						
LACQUER SPRAY CANS	1.4(7)	3.0(7)	16.3(7)	36.0(7)	.0	.0
PIGMENT SOLIDS						
VEHICLE SOLIDS						
TOLUENE						
XYLENE						
HYDROCARBON PROPELLANT						
PETROLEUM DISTILLATES						
STA.SET= 19 CAT= CN						
ISP CONTAM CUPS & WOOD STICKS	.3(8)	.8(8)	4.1(8)	9.0(8)	.0	.0
INSTANT SET POLYMER						
STA.SET= 19 CAT= CN						
MARSHALL STENCIL INK SPRAYCANS	.1(7)	.3(7)	1.6(7)	3.6(7)	.0	.0
XYLENE						
(CONT.)						

TABLE 10 (CONT.) HAZARDOUS WASTE GENERATION FOR 1986 PAGE 3

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
NAPTHA						
OTHER MATERIALS						
STA.SET= 19 CAT= CN						
LACQUER SPRAYCANS	1.1(7)	2.4(7)	13.1(7)	28.8(7)	.0	.0
PIGMENT SOLIDS						
VEHICLE SOLIDS						
TOLUENE						
XYLENE						
HYDROCARBON PROPELLANT						
PETROLEUM DISTILLATES						
STA.SET= 19 CAT= CN						
ENAMEL SPRAYCANS	2.0(7)	4.5(7)	24.5(7)	54.0(7)	.0	.0
STA.SET= 19 CAT= CN						
ZINC CHROMATE PRIMER CANS	2.0(7)	4.5(7)	24.5(7)	54.0(7)	.0	.0
STA.SET= 19 CAT= CN						
CONTAMINATED TARE CUPS					.0	.0
EA 911 EPOXY						
EA 934 EPOXY						
EA 9309 EPOXY						
STA.SET= 19 CAT= CR						
RAGS WITH SOLVENTS, GREASES	2.3(9)	5.0(9)	27.2(9)	60.0(9)	.0	.0
STA.SET= 19 CAT= CR						
SOLVENT-CONTAM CHEESECLOTH					.0	.0
ISOPROPYL ALCOHOL						
METHYL ETHYL KETONE						
1,1,1-TRICHLOROETHANE						
STA.SET= 19 CAT= CR						
MEK & IPA CONTAM CHEESECLOTH					.0	.0
METHYL ETHYL KETONE						
ISOPROPYL ALCOHOL						
STA.SET= 19 CAT= CR						
IPA CONTAMINATED CHEESECLOTH					.0	.0
ISOPROPYL ALCOHOL						
STA.SET= 19 CAT= CR						
TCE CONTAMINATED CHEESECLOTH					.0	.0
1,1,1-TRICHLOROETHANE						
STA.SET= 19 CAT= CR						
MEK CONTAMINATED CHEESECLOTH					.0	.0
METHYL ETHYL KETONE						

TABLE 10 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1986

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR SOLID FILM LUBRIC CONT CHSCLTH					.0	.0
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR DICHLOROMETHANE CONT CHSECLTH					.0	.0
STA.SET= 19 CAT= CR CONTAM CLOTHES, CLOTH & DEBRIS KOROPON BASE PRIMER KOROPON ACTIVATOR BERYLLIUM DUST	2.3(10)	5.0(10)	27.2(10)	60.0(10)	.0	.0
STA.SET= 19 CAT= EW WASTEWATER FROM EEW&S	1514.1(4)	3338.0(4)	18169.0(4)	40056.0(4)		
STA.SET= 19 CAT= FS WASTEWATER FROM PAYLOAD/ORB MMH	272.2 27.2	600.0 60.0	3265.8 326.6	7200.0 720.0	.0	.0
STA.SET= 19 CAT= FS WASTE FUEL AND PRIMOL 355(11) HYDRAZINE & MMH	18.1 .9	40.0 2.0	217.7 10.9	480.0 24.0		
STA.SET= 19 CAT= HF VACUUM PUMP OIL TEXACO REGAL OIL 068	2.3	5.0	27.2	60.0	.0	.0
STA.SET= 19 CAT= HS FUEL SCRUBBER HYDRAZINE & MMH	1270.1 25.4	2800.0 56.0	15240.6 304.8	33600.0 672.0	.0	.0
STA.SET= 19 CAT= HY HYDRAZINE	.0	.0	.0	.0	2494.7(12)	5500.0(12)
STA.SET= 19 CAT= HY HYDRAZINE	34.0	75.0	408.2	900.0	34.0(12)	75.0(12)
STA.SET= 19 CAT= IN POLYURETHANE FOAM	2.3	5.0	27.2	60.0	.0	.0

TABLE 10 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1986

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= IN [illegible] A B MIX[illegible] [illegible]YOX[illegible]E [illegible]ITOL ROMATIC [illegible]RT ALU[illegible]D PARTICLES DIPHENYLMETH[illegible]E DIISOCYANATE POLY[illegible]ERS OF DPM DIISOCYANATE	.1	.2	.8	1.8	.0	.0
STA.SET= 19 CAT= IN INSTANT SET POLYMER SCRAPS DIPHENYL METHANE DIISOCYANATE POLY(OXALKYLENE)POLYETHER AROMATIC HYDROCARBONS	.9(13)	2.0(13)	10.9(13)	24.0(13)	[illegible]	.0
STA.SET= 19 CAT= IN SILANE/ACETIC ACID RESIDUE METHYL TRIMETHOXYSILANE ACETIC ACID	.2	.5	2.7	6.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE	17.7	39.0	212.3	468.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE	4.5	10.0	54.4	120.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	9.4(15)	20.7(15)	112.7(15)	248.4(15)	107.3(12)	236.5(12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	9.4(15)	20.7(15)	112.7(15)	248.4(15)	148.3(12)	327.0(12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	6.7(15)	14.7(15)	80.0(15)	176.4(15)	182.8(12)	403.0(12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	20.8(15)	45.9(15)	249.8(15)	550.8(15)	.0	.0
STA.SET= 19 CAT= NH WASTEWATER WITH AMMONIA	18.1(15)	40.0(15)	217.7(15)	480.0(15)	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	2.7	6.0	32.7	72.0	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	4.9	10.8	58.8	29.6	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	17.1(15)	37.8(15)	205.7(15)	453.6(15)	163.1(12)	359.5(12)

TABLE 10 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1986

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEAPLY KILOGRAMS	BASELINE YEAPLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	17.1(15)	37.8(15)	205.7(15)	453.6(15)	232.9(12)	513.5(12)
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	11.9(15)	26.3(15)	143.2(15)	315.6(15)	286.2(12)	631.0(12)
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	39.7(15)	87.6(15)	476.8(15)	1051.2(15)	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	.0	.0	.0	.0	4082.3(12)	9000.0(12)
STA.SET= 19 CAT= OS DECONTAMINATE FROM PAYLOAD/ORB N204	145.1 1.4	320.0 3.0	1741.8 16.3	3840.0 36.0	.0	.0
STA.SET= 19 CAT= OS WASTE OXIDIZER AND PRIMCL 355 (1) N204	18.6 1.4	41.0 3.0	223.2 16.3	492.0 36.0	.0	.0
STA.SET= 19 CAT= PA KORROON PRIMER COAT PNT BRUSH BUTYL ACETATE TALC - Mg SILICATES EPOXY RESIN	9.1(16)	20.0(16)	108.9(16)	240.0(16)	.0	.0
STA.SET= 19 CAT= PA LACQUER #626486	.3(17)	.6(17)	3.5(17)	7.8(17)	.0	.0
STA.SET= 19 CAT= A CONTAMINATED BRUSHES ORGANIC ZINC PRIMER ZINC CHROMATE PRIMER	.9(16)	2.0(16)	10.9(16)	24.0(16)	.0	.0
STA.SET= 19 CAT= PA ORGANIC ZINC PRIMER ZINC DUST BARYTES MOLYBDATE ORANGE SILICA HIGH MOLECULAR WEIGHT EPOXY CELLOSOLVE ACETATE TOLUENE METHYL ETHYL KETONE	2.8(18)	6.3(18)	34.0(18)	75.0(18)	.0	.0
STA.SET= 19 CAT= PA CONTAMINATED PAINT BRUSHES EA 911 EPOXY (CONT.)	.9(16)	2.0(16)	10.9(16)	24.0(16)	.0	.0

TABLE 10 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1986

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EA 934 EPOXY						
EA 9309 EPOXY						
STA.SET= 19 CAT= SO	.4	.9	4.9	10.8	.0	.0
DOPE & LACQUER THINNER	.1	.2	.8	1.8		
ALIPHATIC NAPTHA	.2	.4	2.2	4.8		
ESTER OR KETONE	.1	.3	1.4	3.0		
ISO- OR n-BUTYL ACETATE	<.1	.1	.5	1.2		
ISO- OR n-BUTYL ALCOHOL						
STA.SET= 19 CAT= SW	21.2	46.8	254.5	561.0	.0	.0
WASHWATER WITH MEK	3.1	6.8	36.7	81.0		
METHYL ETHYL KETONE						
SUBTOTAL FOR SET 19	3509.3	7736.7	42111.5	92840.4	7731.7	17045.5
STA.SET= 21 CAT= EW	1362.7(4)	3004.2(4)	16352.1(4)	36050.4(4)		
WASTEWATER FROM EEW&S						
STA.SET= 21 CAT= FS	54.0	119.0	647.7	1428.0	.0	.0
WASTEWATER WITH MMH	5.0	11.0	59.9	132.0		
MMH						
STA.SET= 21 CAT= HS	181.4	400.0	2177.2	4800.0	.0	.0
FUEL SCRUBBER	3.3	7.3	39.7	87.6		
MMH						
STA.SET= 21 CAT= IN	2.3	5.0	27.2	60.0	.0	.0
TILE REPAIR FOAM	2.3	5.0	27.2	60.0		
POLYURETHANE						
STA.SET= 21 CAT= MH	.0	.0	.0	.0		
MONOMETHYL HYDRAZINE						
STA.SET= 21 CAT= NO	.0	.0	.0	.0	9797.5(19)	21600.0(19)
NITROGEN TETROXIDE						
STA.SET= 21 CAT= NO	7.5	16.5	89.8	198.0	.0	.0
NITROGEN TETROXIDE						
STA.SET= 21 CAT= NO	25.6	56.5	307.5	678.0	.0	.0
NITROGEN TETROXIDE						
STA.SET= 21 CAT= NO	.0	.0	.0	.0	4898.8(20)	10800.0(20)
NITROGEN TETROXIDE						
STA.SET= 21 CAT= OS	36.4	80.2	436.5	962.4	.0	.0
WASTEWATER WITH OXIDIZER						

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
N204	.3	.6	3.3	7.2		
STA.SET= 21 CAT= SW						
WASTEWATER WITH MEK	21.2	46.7	254.2	560.4	.0	.0
METHYL ETHYL KETONE	3.0	6.7	36.5	80.4		
STA.SET= 21 CAT= WP						
WASTE SEALS, FILTERS, ETC.	2.3(21)	5.0(21)	27.2(21)	60.0(21)	.0	.0
SUBTOTAL FOR SET 21	1693.3	3733.1	20319.6	44797.2	14696.3	32400.0
STA.SET= 23 CAT= SW						
WASTEWATER FROM EEW&S	1514.1	3338.0	18169.0	40056.0		
STA.SET= 23 CAT= FS						
HYDRAZINE-CONTAM. WASTEWATER	283.9	626.0	3407.4	7512.0		
HYDRAZINE	14.1	31.0	168.7	372.0		
STA.SET= 23 CAT= FS						
HYDRAZINE-CONTAM. CLNUP WATER	94.6	208.5	1134.9	2502.0		
HYDRAZINE	1.0	2.3	12.5	27.6		
STA.SET= 23 CAT= FS						
WASTEWATER FROM PPR	1135.6	2503.5	13626.8	30042.0		
HYDRAZINE						
STA.SET= 23 CAT= FS						
PRIMOL 355(11)	170 3	375.5	2043.9	4506.0		
HYDRAZINE						
MMH						
STA.SET= 23 CAT= HF						
HYDRAULIC FLUIDS	196.9	434.0	2362.3	5208.0	.0	.0
TETRAORTHOCRESOL PHOSPHATE	196.9	434.0	2362.3	5208.0		
STA.SET= 23 CAT= HS						
HYDRAZINE & MMH SCRUBBER	378.5(18)	834.5(18)	4542.3(18)	10014.0(18)	.0	.0
HYDRAZINE	8.4	18.5	100.7	222.0		
MMH	6.6	14.5	78.9	174.0		
STA.SET= 23 CAT= HY						
HYDRAZINE	104.1	229.5	1249.2	2754.0	.0	.0
STA.SET= 23 CAT= HY						
LBM PROPELLANT	.0	.0	.0	.0	39689.1(22)	87500.0(22)
PARAHYDRAZINE	.0	.0	.0	.0		
(CONT.)						

TABLE 10 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1986

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
UNSYM DIMETHYLHYDRAZINE	.0	.0	.0	.0		
STA.SET= 23 CAT= HY HYDRAZINE	.0	.0	.0	.0	2712.7(22)	5980.5(22)
STA.SET= 23 CAT= IN K5NA INSULATION BUTYL GLYCIDYL ETHER EPOXY RESINS, UNCURED	5.2	11.5	62.6	138.0	.0	.0
STA.SET= 23 CAT= MH MONOMETHYL HYDRAZINE	165.3	364.5	1984.0	4374.0	.0	.0
STA.SET= 23 CAT= MH MONOMETHYL HYDRAZINE	.0	.0	.0	.0	6026.2(22)	13285.5(22)
STA.SET= 23 CAT= NH AMMONIA	.0	.0	.0	.0	47.2(22)	104.0(22)
STA.SET= 23 CAT= NO NITROGEN TETROXIDE	91.7	202.1	1100.3	2425.8	.0	.0
STA.SET= 23 CAT= NO LBM OXIDIZER NITROGEN TETROXIDE	.0 .0	.0 .0	.0 .0	.0 .0	39689.1(22)	87500.0(22)
STA.SET= 23 CAT= NO NITROGEN TETROXIDE	.0	.0	.0	.0	14064.9(22)	31008.0(22)
STA.SET= 23 CAT= OS N204 CONTAM. CLEANUP WATER NITROGEN TETROXIDE	56.7 .6	125.0 1.3	680.4 6.8	1500.0 15.0		
STA.SET= 23 CAT= OS N204 CONTAM. WASTEWATER NITROGEN TETROXIDE	189.1 14.1	417.0 31.0	2269.8 168.7	5004.0 372.0		
STA.SET= 23 CAT= OS PRIMOL 355(11) N204	170.3	375.5	2043.9	4506.0		
STA.SET= 23 CAT= PS SRB PROPELLANT SPILL(23) AMMONIUM PERCHLORATE ALUMINUM POWDER PBAN BINDER HTPB BINDER IRON OXIDE	.0 .0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0 .0	504301.3(24)	1111800.0(24)
STA.SET= 23 CAT= QW	283947.3	626000.0	3407368.0	7512000.0	.0	.0

TABLE 10 (CONT.) HAZARDOUS WASTE GENERATION FOR 1986 PAGE 10

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
ALUMINUM OXIDE	1.7	3.7	20.1	44.4		
AMMONIA	.1	.3	1.4	3.0		
HYDROCHLORIC ACID	181.2	399.5	2174.5	4794.0		
ORGANIC CARBON	1.7	3.8	20.4	45.0		
STA.SET= 23 CAT= SO						
SOLVENT MIXTURE	145.7(25)	321.3(25)	1748.9(25)	3855.6(25)	.0	.0
FREON TMC/MF/TF						
SYM. TETRACHLOROETHANE						
STA.SET= 23 CAT= SO						
CONTAMINATED SOLVENTS	132.4(26)	292.0(26)	1589.4(26)	3504.0(26)	.0	.0
STA.SET= 23 CAT= SW						
SOLVENT WASTEWATER UNSPEC.	208.2(18)(25)	459.0(18)(25)	2498.4(18)(25)	5508.0(18)(25)	.0	.0
STA.SET= 23 CAT= SW						
CONTAMINATED WASTEWATER	473.1(18)	1043.0(18)	5677.1(18)	12516.0(18)	.0	.0
SOLVENTS						
CHLORINATED RUBBER						
ZINC PRIMER						
SUBTOTAL FOR SET 23	289463.2	638160.5	3473558.5	7657926.0	102229.2	225378.0
STA.SET= 31 CAT= AL						
SURFACTANT					.0	.0
NaOH						
SODIUM TRIPOLYPHOSPHATE						
STA.SET= 31 CAT= AW						
EA 934 EPOXY ADHESIVE	7.9(26)(27)	17.5(26)(27)	95.3(26)(27)	210.0(26)(27)	.0	.0
EPOXY RESIN	3.4	7.5	40.8	90.0		
ASBESTOS	.9	2.0	10.9	24.0		
FILLERS	1.6	3.5	19.1	42.0		
POLYAMIDE	1.8	4.0	21.8	48.0		
DIETHYLENETRIAMINE	.2	.5	2.7	6.0		
STA.SET= 31 CAT= CA						
CONTAMINATED AIR FILTERS	11.3	25.0	136.1	300.0	.0	.0
STA.SET= 31 CAT= CA						
CHARCOAL FILTER WASTES					.0	.0
STA.SET= 31 CAT= CA						
CONTAMINATED AIR FILTERS	11.3	25.0	136.1	300.0	.0	.0
STA.SET= 31 CAT= CN						
BOSTIK PRIMER PAINT CANS	3.4(6)	7.5(6)	40.8(6)	90.0(6)	.0	.0

TABLE 10 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1986

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 31 CAT= CN BOSTIK TOPCOAT PAINT CANS	10.2(6)	22.5(6)	122.5(6)	270.0(6)	.0	.0
STA.SET= 31 CAT= CN RUSTOLEUM PRIMER PAINT CANS	.5(6)	1.0(6)	5.4(6)	12.0(6)	.0	.0
STA.SET= 31 CAT= CN RUSTOLEUM TOPCOAT PAINT CANS	.5(6)	1.0(6)	5.4(6)	12.0(6)	.0	.0
STA.SET= 31 CAT= CN MSA-1 EMPTY CONTAINERS	226.8(28)	500.0(28)	2721.5(28)	6000.0(28)	.0	.0
STA.SET= 31 CAT= CN K5HA CONTAINERS	1.7	3.8	20.4	45.0	.0	.0
STA.SET= 31 CAT= CN K5HA & MTA-2 PACKING MATERIALS	1134.0(28)	2500.0(28)	13607.7(28)	30000.0(28)	.0	.0
STA.SET= 31 CAT= CR SOLVENT CONTAMINATED RAGS	2.3(9)	5.0(9)	27.2(9)	60.0(9)	.0	.0
STA.SET= 31 CAT= CR ALODINE CONTAMINATED RAGS	1.1(9)	2.5(9)	13.6(9)	30.0(9)	.0	.0
STA.SET= 31 CAT= CR RYMPLE CLOTHS	2.3(9)	5.0(9)	27.2(9)	60.0(9)	.0	.0
STA.SET= 31 CAT= CR PAINT DROP CLOTHS	3.4(9)	7.5(9)	40.8(9)	90.0(9)	.0	.0
STA.SET= 31 CAT= EW WASTEWATER FROM EEW&S	605.6(4)	1335.2(4)	7267.6(4)	16022.4(4)		
STA.SET= 31 CAT= FO FUEL AND OIL SPILLS	.0	.0	.0	.0		
STA.SET= 31 CAT= FO FUEL & OIL WASTES	19.1	42.0	228.6	504.0	.0	.0
STA.SET= 31 CAT= FS PRIMOL 355(11)	.0	.0	.0	.0		
STA.SET= 31 CAT= HS SCRUBBER EFFLUENT	18.8(18)	41.5(18)	225.9(18)	498.0(18)	.0	.0
STA.SET= 31 CAT= HY HYDRAZINE	54.7	120.7	656.7	1447.8	.0	.0
STA.SET= 31 CAT= IN MSA-1 (CURED)(29)	45.4(25)	100.0(25)	544.3(25)	1200.0(25)	.0	.0

TABLE 10 (CONT.) HAZARDOUS WASTE GENERATION FOR 1986 PAGE 12

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPICHLORHYDRIN/BGE	18.2	40.1	218.0	480.6		
GLASS ECOSPHERES	5.4	11.8	64.2	141.6		
PHENOLIC MICROSPHERES	16.1	35.4	193.0	425.4		
GLASS FIBERS	2.0	4.4	23.9	52.8		
BENTONE 27	1.5	3.3	18.2	40.2		
METHYLENE DIANILINE	1.6	3.5	19.1	42.0		
m-PHENYLENE DIAMINE	.7	1.5	7.9	17.4		
STA.SET= 31 CAT= IN						
MSA-1, PART A (UNMIXED)[30]					.0	.0
METHYLENE CHLORIDE						
EPICHLORHYDRIN/BGE						
STA.SET= 31 CAT= IN						
MSA-1, PART B (UNMIXED)[30]					.0	.0
METHYLENE CHLORIDE						
PERCHLOROETHYLENE						
METHYLENE DIANILINE						
m-PHENYLENE DIAMINE						
ETHYL ALCOHOL						
PHENOLIC MICROSPHERES						
GLASS ECOSPHERES						
GLASS FIBERS						
BENTONE 27						
STA.SET= 31 CAT= IN						
MTA-2 (CURED)[29]	22.7	50.0	272.2	600.0	.0	.0
EPICHLORHYDRIN/BGE	7.0	15.5	84.1	185.4		
LP-3, POLYSULFIDE LIQ POLYMER	7.0	15.5	84.1	185.4		
MDA & mPDA	2.8	6.2	33.5	73.8		
STANNOUS OCTOATE	.3	.6	3.3	7.2		
PHENOLIC MICROSPHERES	5.6	12.4	67.2	148.2		
STA.SET= 31 CAT= IN						
MTA-2 (UNMIXED)[30]	6.8	15.0	81.6	180.0	.0	.0
EPICHLORHYDRIN/BGE	2.1	4.6	25.3	55.8		
LP-3, POLYSULFIDE LIQ POLYMER	2.1	4.6	25.3	55.8		
MDA & mPDA	.8	1.9	10.1	22.2		
STANNOUS OCTOATE	.1	.2	1.1	2.4		
PHENOLIC MICROSPHERES	1.7	3.7	20.1	44.4		
METHYLENE CHLORIDE						
PERCHLOROETHYLENE						
STA.SET= 31 CAT= IN						
K5NA	3.6	8.0	43.5	96.0	.0	.0
BUTYL GLYCIDYL ETHER						
EPOXY RESINS						
STA.SET= 31 CAT= IN						
INSULATION AND PAPER					.0	.0

TABLE 10 (CONT.) HAZARDOUS WASTE GENERATION FOR 1986 PAGE 13

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 31 CAT= PA						
BOSTIK EPOXY PRIMER	6.1	13.5	73.5	162.0	.0	.0
EPOXY RESIN	.8	1.8	9.5	21.0		
AMINE CURING AGENT	.1	.3	1.6	3.6		
TITANIUM DIOXIDE	.1	.3	1.6	3.6		
CHROMATE PIGMENTS	.3	.6	3.3	7.2		
INERT PIGMENTS	.9	1.9	10.3	22.8		
SUSPENSION & FLOW CONTROL ADDI	<.1	.1	.3	.6		
SOLVENTS	3.7	8.1	44.1	97.2		
STA.SET= 31 CAT= PA						
BOSTIK EPOXY TOPCOAT	8.4	18.5	100.7	222.0	.0	.0
EPICHLORHYDRIN/BISPHENOL A	2.0	4.5	24.5	54.0		
AMINE CURING AGENT	.3	.7	3.8	8.4		
COLOR PIGMENT	1.7	3.8	20.4	45.0		
SUSPENSION & FLOW CONTROL ADDI	.1	.3	1.4	3.0		
SOLVENTS PHOTOCHEM REACTIVE	.8	1.8	9.5	21.0		
SOLVENTS NONPHOTOCHEM REACTIVE	3.4	7.5	40.8	90.0		
STA.SET= 31 CAT= PA						
RUSTOLEUM PRIMER	1.8	4.0	21.8	48.0	.0	.0
SILICATES	.3	.6	3.5	7.8		
YELLOW IRON OXIDE	.1	.3	1.6	3.6		
TITANIUM DIOXIDE	<.1	.1	.5	1.2		
CALCIUM BOROSILICATE	.3	.8	4.1	9.0		
BENTONITE	<.1	<.1	.1	.2		
LINSEED PHENOLIC ALKYL RESIN	.4	.8	4.4	9.6		
ALIPHATIC HYDROCARBONS	.6	1.3	7.1	15.6		
DRIERS AND ADDITIVES	<.1	.1	.5	1.2		
STA.SET= 31 CAT= PA						
RUSTOLEUM TOPCOAT	1.8	4.0	21.8	48.0	.0	.0
SILICATES	.6	1.3	7.1	15.6		
TITANIUM DIOXIDE	.3	.7	3.8	8.4		
BENTONITE CLAY	<.1	<.1	.1	.2		
TINTING COLORS	<.1	.1	.5	1.2		
ALKYL RESIN	.3	.7	3.8	8.4		
ALIPHATIC HYDROCARBONS	.5	1.2	6.5	14.4		
DRIERS & ADDOTIVES	<.1	.1	.3	.6		
STA.SET= 31 CAT= PA						
GACOFLEX	8.8	19.5	106.1	234.0	.0	.0
TITANIUM DIOXIDE	.6	1.4	7.3	16.2		
CLAY	.7	1.5	8.4	18.6		
HYPALON	.9	2.0	10.6	23.4		
HYDROCARBON RESIN	.2	.4	2.2	4.8		
PERCHLOROETHYLENE	4.2	9.1	49.8	109.8		
1,1,1-TRICHLOROETHANE	2.2	4.9	26.7	58.8		

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPOXIDIZED SOYBEAN OIL	.1	.2	1.1	2.4		
STA.SET= 31 CAT= PA PAINT-SPILL ABSORBANT	.0	.0	.0	.0		
STA.SET= 31 CAT= PW ALODINE CONTAMINATED WASTEWATR	75.7(18)	167.0(18)	909.0(18)	2004.0(18)	.0	.0
CHROMIC ACID	1.3(31)	3.0(31)	16.1(31)	35.4(31)		
FERRICYANIDE SALT	.7	1.7	9.0	19.8		
COMPLEX FLUORIDE SALT	<.1	.1	.3	.6		
STA.SET= 31 CAT= SO PERCHLOROETHYLENE	.3	.7	3.8	8.4	.0	.0
STA.SET= 31 CAT= SO TRICHLOROETHANE	.2	.5	3.0	6.6	.0	.0
STA.SET= 31 CAT= SO FREON 113	.3	.6	3.5	7.8	.0	.0
STA.SET= 31 CAT= SO MSA-1 CONTAMINATED MECI	752.7	1659.5	9032.8	19914.0	.0	.0
STA.SET= 31 CAT= SO MSA-1 CONTAM PERCHLOROETHYLENE	926.0	2041.5	11112.0	24498.0	.0	.0
STA.SET= 31 CAT= SO PERCHLOROETHYLENE	138.8	306.0	1665.6	3672.0	.0	.0
STA.SET= 31 CAT= SO TRICHLOROETHANE	40.8	90.0	489.9	1080.0	.0	.0
STA.SET= 31 CAT= SO METHYLENE CHLORIDE	127.9	282.0	1534.9	3384.0	.0	.0
STA.SET= 31 CAT= SO MTA-2 CONTAMINATED SOLVENTS	264.9(26)	584.0(26)	3178.8(26)	7008.0(26)	.0	.0
STA.SET= 31 CAT= SO BOSTIK CONTAMINATED SOLVENTS	132.4(26)	292.0(26)	1589.4(26)	3504.0(26)	.0	.0
STA.SET= 31 CAT= SO RUSTOLEUM CONTAMINATED SOLVENT	132.4(26)	292.0(26)	1589.4(26)	3504.0(26)	.0	.0
SUBTOTAL FOR SET 31	4813.0	10611.0	57756.5	127332.0	.0	.0
STA.SET= 32 CAT= BA LITHIUM STORAGE BATTERIES	12.2	27.0	147.0	324.0	.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 32 CAT= BA SILVER-ZINC STORAGE BATTERIES	20.4	45.0	244.9	540.0	.0	.0
STA.SET= 32 CAT= BA POTASSIUM HYDROXIDE SOLUTION	4.4[18]	9.6[18]	52.3[18]	115.2[18]	.0	.0
STA.SET= 32 CAT= CB HYDRAZINE-CONTAMINATED WATER	54.4[18]	120.0[18]	653.2[18]	1440.0[18]	.0	.0
STA.SET= 32 CAT= CS CONTAMINATED SEAWATER[32]	.0	.0	.0	.0		
STA.SET= 32 CAT= CS CONTAMINATED SEAWATER[32]	7257.4	16000.0	87099.3	192000.0	.0	.0
STA.SET= 32 CAT= CW SRB FWD SKT CLEANING WASTES					.0	.0
STA.SET= 32 CAT= EW WASTEWATER FROM EEW&S	302.8[4]	667.6[4]	3633.8[4]	8011.2[4]		
STA.SET= 32 CAT= FO BILGE WASTES					.0	.0
STA.SET= 32 CAT= FO DIESEL FUEL & OIL SPILLS	.0	.0	.0	.0		
STA.SET= 32 CAT= FS WASTE FUEL & PRIMOL 35[11] HYDRAZINE	.0 .0	.0 .0	.0 .0	.0 .0		
STA.SET= 32 CAT= HS HYDRAZINE SCRUBBER EFFLUENT HYDRAZINE	90.7[18] .8	200.0[18] 1.8	1088.6[18] 9.8	2400.0[18] 21.6	.0	.0
STA.SET= 32 CAT= HY HYDRAZINE	20.5	45.3	246.3	543.0	.0	.0
STA.SET= 32 CAT= IN INSULATION WASTES, SOLID[33] MSA-1 INSULATION MTA-2 INSULATION K5NA INSULATION PR-855 INSULATION	362.9[34]	800.0[34]	4354.5[34]	9600.0[34]	.0	.0
STA.SET= 32 CAT= IN INSULATION CONTAM FILTERS	2.3[21]	5.0[21]	27.2[21]	60.0[21]	.0	.0
STA.SET= 32 CAT= IW [illegible][33]	[illegible][18]	204250.0[18]	1111749.0[18]	2451000.0[18]	.0	.0

TABLE 10 (CONT.) HAZARDOUS WASTE GENERATION FOR 1986

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
MSA-1 INSULATION						
MTA-2 INSULATION						
K5NA INSULATION						
PR-855 INSULATION						
STA.SET= 32 CAT= PR					.0	.0
PRESERVATIVE CHEMICALS						
PROTECTIVE LUBRICANTS						
STA.SET= 32 CAT= PS					78.5(24)	173.0(24)
SRB SOLID PROPELLANT	.0	.0	.0	.0		
AMMONIUM PERCHLORATE	.0	.0	.0	.0		
ALUMINUM POWDER	.0	.0	.0	.0		
FERRIC OXIDE	.0	.0	.0	.0		
POLYMER & EPOXY RESIN	.0	.0	.0	.0		
STA.SET= 32 CAT= SB						
DETERGENT WASHWATER(35)	17417.9	38400.0	209014.3	460800.0	.0	.0
STA.SET= 32 CAT= SB						
POTABLE RINSE WATER	60236.8	132800.0	722841.0	1593600.0	.0	.0
STA.SET= 32 CAT= SB						
DEIONIZED RINSE WATER	28195.2	62160.0	338341.8	745920.0	.0	.0
STA.SET= 32 CAT= SI						
SRB RINSE WATER	10886.2	24000.0	130633.9	288000.0	.0	.0
STA.SET= 32 CAT= SO						
SOLVENTS	5.3(26)	11.7(26)	63.7(26)	140.4(26)	.0	.0
FREON TMC/TM						
SOLVENTS, UNSPECIFIED						
SUBTOTAL FOR SET 32	217515.1	479541.2	2610181.0	5754494.0	.0	.0
STA.SET= 33 CAT= CA						
AIR FILTERS	2.3(21)	5.0(21)	27.2(21)	60.0(21)	.0	.0
STA.SET= 33 CAT= EW						
WASTEWATER FROM EEW&S	94.6	208.5	1134.9	2502.0		
STA.SET= 33 CAT= HF					.0	.0
HYDRAULIC FLUIDS						
SUBTOTAL FOR SET 33	96.8	213.5	1162.1	2562.0	.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 99 CAT= AW						
GX-6300 ABLATOR ADHESIVE	2.9	6.5	35.4	78.0	.0	.0
RESIN STM L 663	.3	.6	3.5	7.8		
RESIN STM L 664	1.1	2.4	13.1	28.8		
SILICA POWDER	.1	.2	1.1	2.4		
CARBON POWDER	.1	.2	1.1	2.4		
CURING AGENT L 663	.1	.3	1.4	3.0		
CURING AGENT L 664	<.1	.1	.3	.6		
HEPTANE	1.2	2.6	14.2	31.2		
XYLENE	.1	.2	.8	1.8		
STA.SET= 99 CAT= AW						
ISOCHEM POLYESTER RESIN ADHESV	2.9	6.5	35.4	78.0	.0	.0
STYRENE						
MEK PEROXIDE CATALYST						
DIMETHYL PHTHALATE						
STA.SET= 99 CAT= CA						
FILTER					.0	.0
STA.SET= 99 CAT= CN						
SOLVENT CONTAMINATED CONTAINER	1.1(28)	2.5(28)	13.6(28)	30.0(28)	.0	.0
SOLVENTS(36)						
STA.SET= 99 CAT= CN						
PRIMER CONTAMINATED CONTAINERS	.2(28)	.4(28)	1.9(28)	4.2(28)	.0	.0
STA.SET= 99 CAT= CN						
ADHESIVE CONTAMINATED CONTAINR	.2(28)	.4(28)	1.9(28)	4.2(28)	.0	.0
STA.SET= 99 CAT= CN						
SOLVENT CONTAINERS					.0	.0
STA.SET= 99 CAT= CN						
POUR FOAM CONTAINERS	11.3(28)	25.0(28)	136.1(28)	300.9(28)	.0	.0
STA.SET= 99 CAT= CN						
ABLATOR CONTAMINATED CONTAINER	.2(28)	.4(28)	1.9(28)	4.2(28)	.0	.0
STA.SET= 99 CAT= CR						
SOLVENT CONTAMINATED RAGS	2.3(9)	5.0(9)	27.2(9)	60.0(9)	.0	.0
STA.SET= 99 CAT= CR						
ADHESIVE CONTAMINATED RAGS	2.3(9)	5.0(9)	27.2(9)	60.0(9)	.0	.0
STA.SET= 99 CAT= CR						
EPOXY PRIMER-CONTAMINATED RAGS	1.1(9)	2.5(9)	13.6(9)	30.0(9)	.0	.0
STA.SET= 99 CAT= IN						
BX-250 FOAM (SOFI)	59.0	130.0	707.6	1560.0	.0	.0

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
DIPHENYL METHANE DIISOCYANATE	14.7	32.5	176.9	390.0		
FREON 11	9.5	21.0	114.3	252.0		
AMINES	5.2	11.5	62.6	138.0		
POLYOLS						
SUPER MEK PEROXIDE						
POLYESTER RESIN						
DIMETHYL PHTHALATE						
STA.SET= 99 CAT= IN						
POUR FOAM (MIXED)[29]	62.4[37]	137.5[37]	748.4[37]	1650.0[37]	.0	.0
POLYURETHANE						
STA.SET= 99 CAT= IN						
POUR FOAM PART A (UNMIXED)[30]	3.2	7.0	38.1	84.0	.0	.0
DIPHENYL METHANE DIISOCYANATE	1.6	3.5	19.1	42.0		
FREON 11	1.0	2.3	12.2	27.0		
POLYOLS, AMINES	.6	1.3	6.8	15.0		
STA.SET= 99 CAT= IN						
POUR FOAM PART B (UNMIXED)[30]	3.2	7.0	38.1	84.0	.0	.0
FREON 11	.6	1.4	7.6	16.8		
AMINE CATALYST	.1	.2	.8	1.8		
POLYETHER POLYOL BLEND	2.5	5.4	29.7	65.4		
STA.SET= 99 CAT= IN						
POUR FOAM CONTAMINATED PAPER	.7[28]	1.7[28]	9.0[28]	19.8[28]	.0	.0
STA.SET= 99 CAT= IN						
SUPER LIGHT ABLATOR (I)	2.3	5.0	27.2	60.0	.0	.0
RESIN L664, PT A	1.3	3.0	16.1	35.4		
SILICA FIBERS	.1	.3	1.6	3.6		
CORK	.3	.6	3.3	7.2		
PHENOLIC MICROSPHERES	.1	.2	.8	1.8		
SILICA MICROSPHERES	.3	.7	3.8	8.4		
CURING AGENT	.1	.3	1.6	3.6		
STA.SET= 99 CAT= IN						
SUPER LIGHT ABLATOR (II)	2.3	5.0	27.2	60.0	.0	.0
RESIN STM L664, PT A	.7	1.5	8.2	18.0		
CARBON POWDER						
SILICA FIBERS						
CORK						
SILICA MICROSPHERES						
PHENOLIC MICROSPHERES						
CURING AGENT STM L664, PT B	.4	.9	4.6	10.2		
STA.SET= 99 CAT= IN						
POUR FOAM "TRIMMINGS"	2.3	5.0	27.2	60.0	.0	.0
POLYURETHANE						

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 99 CAT= PA EPOXY PRIMER METHYLENE ISOBUTYL KETONE XYLENE CYCLOHEXANONE CHROMATES INORGANIC PIGMENTS N-BUTANOL TOLUENE AMINO SILANE METHYL ETHYL KETONE	<.1(27)	.1(27)	.3(27)	.6(27)	.0	.0
STA.SET= 99 CAT= PA D.C. 1200 VM AND P NAPTHA ORGANOMETALLIC SALTS	<.1(27)	.1(27)	.3(27)	.6(27)	.0	.0
STA.SET= 99 CAT= SO FREON TMC	.1(27)	.2(27)	.8(27)	1.8(27)	.0	.0
STA.SET= 99 CAT= SO 1,1,1-TRICHLOROETHANE	.1(27)	.2(27)	.8(27)	1.8(27)	.0	.0
STA.SET= 99 CAT= SO MEK & CELLOSOLVE	6.1	13.5	73.2	161.4	.0	.0
STA.SET= 99 CAT= SO HEPTANE	37.5	82.8	450.4	993.0	.0	.0
STA.SET= 99 CAT= SO CELLOSOLVE ACETATE	53.5	118.0	642.3	1416.0	.0	.0
STA.SET= 99 CAT= SO METHYL ETHYL KETONE	44.2	97.4	530.4	1169.4	.0	.0
STA.SET= 99 CAT= SR SOLVENT REDUCER	.3	.6	3.3	7.2	.0	.0
METHYL ETHYL KETONE	.2	.4	2.2	4.8		
CYCLOHEXANONE	.1	.2	1.1	2.4		
STA.SET= 99 CAT= SW SOLVENT CONTAMINATED WATER	40.5	89.3	486.1	1071.6	.0	.0
SUBTOTAL FOR SET 99	342.1	754.2	4104.9	9049.8	.0	.0
TOTAL FOR ALL SETS	519986.1	1146379.3	6239833.0	13756550.0	124657.2	274823.5

TABLE 10 (CONT.) HAZARDOUS WASTE GENERATION FOR 1986

SUMMARY BY CATEGORY

CATEGORY	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
SO	4130.7	9106.8	49568.8	109281.0	.0	.0
EW	6756.5	14895.7	81078.5	178748.4	.0	.0
FO	19.1	42.0	228.6	504.0	.0	.0
FS	2028.7	4472.5	24344.2	53670.0	.0	.0
OS	616.3	1358.7	7395.5	16304.4	.0	.0
HF	201.3	443.8	2415.4	5325.0	.0	.0
AW	14.4	31.8	172.8	381.0	.0	.0
CN	1400.3	3087.3	16804.2	37047.0	.0	.0
CR	19.3	42.5	231.3	510.0	.0	.0
KS	1939.6	4276.0	23274.6	51312.0	.0	.0
HY	213.4	470.4	2560.4	5644.8	44930.6	99055.5
IN	589.8	1300.3	7077.6	15603.6	.0	.0
MH	233.8	515.5	2805.9	6186.0	6464.6	14252.0
NH	18.1	40.0	217.7	480.0	47.2	104.0
NO	218.4	481.5	2620.6	5777.4	65050.2	143412.0
PA	41.0	90.5	492.6	1086.0	.0	.0
SW	764.2	1684.8	9170.2	20217.0	.0	.0
WP	2.3	5.0	27.2	60.0	.0	.0
PS	.0	.0	.0	.0	504379.8	1111973.0
QW	283947.3	626000.0	3407368.0	7512000.0	.0	.0
AL	.0	.0	.0	.0	.0	.0
CA	24.9	55.0	299.4	660.0	.0	.0
PW	75.7	167.0	909.0	2004.0	.0	.0
BA	37.0	81.6	444.2	979.2	.0	.0
CB	54.4	120.0	653.2	1440.0	.0	.0
CS	7257.4	16000.0	87089.3	192000.0	.0	.0
CW	.0	.0	.0	.0	.0	.0
IW	92645.8	204250.0	1111749.0	2451000.0	.0	.0
PR	.0	.0	.0	.0	.0	.0
SB	105849.8	233360.0	1270197.0	2800320.0	.0	.0
SI	10886.2	24000.0	130633.9	288000.0	.0	.0
SR	.3	.6	3.3	7.2	.0	.0

* For footnotes, see Table 8.

TABLE 11. HAZARDOUS WASTE GENERATION FOR 1987 *

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 0[2] CAT= SO						
CONTAMINATED FREON	1980.7[3]	4366.7[3]	23768.1[3]	52400.0[3]	.0	.0
SUBTOTAL FOR SET 0	1980.7	4366.7	23768.1	52400.0	.0	.0
STA.SET= 17 CAT= EW						
WASTEWATER FROM EEW&S	2271.1[4]	5007.0[4]	27253.5[4]	60084.0[4]		
STA.SET= 17 CAT= FO						
DIESEL FUEL					.0	.0
STA.SET= 17 CAT= FO						
DIESEL FUEL & OIL					.0	.0
STA.SET= 17 CAT= FS						
CONTAMINATED DILUTION WATER	.0	.0	.0	.0		
MMH	.0	.0	.0	.0		
STA.SET= 17 CAT= OS						
CONTAMINATED DILUTION WATER	.0	.0	.0	.0		
H2O4	.0	.0	.0	.0		
SUBTOTAL FOR SET 17	2271.1	5007.0	27253.5	60084.0	.0	.0
STA.SET= 18 CAT= HF						
HYDRAULIC FLUIDS	3.6[5]	7.9[5]	43.1[5]	95.0[5]	.0	.0
SUBTOTAL FOR SET 18	3.6	7.9	43.1	95.0	.0	.0
STA.SET= 19 CAT= AW						
TPS ADHESIVE, RTV 566/577	.9	2.1	11.3	25.0	.0	.0
PHENYL METHYL POLYSILOXANE						
TIN OXIDE						
IRON OXIDE						
SILICON						
HARDENER						
STA.SET= 19 CAT= AW						
EA 911 EPOXY					.0	.0

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPOXY						
ZINC CHROMATE						
ASBESTOS						
MERCAPTAN						
DIMETHYLAMINE						
STA.SET= 19 CAT= AW					.0	.0
EA 934 EPOXY						
EPOXY RESIN						
ASBESTOS						
STA.SET= 19 CAT= AW					.0	.0
EA 9309 EPOXY						
EPOXY RESIN						
GLASS FIBERS						
ACRYLONITRILE/BUTADIEN/STYRENE						
ASBESTOS						
POLYGLYCOL DIAMINE						
SILANE						
STA.SET= 19 CAT= CN					.0	.0
SPRAYCANS OF TPS SEALER						
FLUORINATED SOLVENT						
FREON 113						
STA.SET= 19 CAT= CN						
KOROPON PRIMER CONTAM CANS	5.7(6)	12.5(6)	68.0(6)	150.0(6)	.0	.0
BUTYL ACETATE						
METHYL ETHYL KETONE						
TOLUENE						
TALC - Mg SILICATES						
EPOXY RESIN						
STA.SET= 19 CAT= CN						
LACQUER SPRAY CANS	2.3(7)	5.0(7)	27.2(7)	60.0(7)	.0	.0
PIGMENT SOLIDS						
VEHICLE SOLIDS						
TOLUENE						
XYLENE						
HYDROCARBON PROPELLANT						
PETROLEUM DISTILLATES						
STA.SET= 19 CAT= CN						
ISP CONTAM CUPS & WOOD STICKS	.6(8)	1.3(8)	6.8(8)	15.0(8)	.0	.0
INSTANT SET POLYMER						
STA.SET= 19 CAT= CN						
MARSHALL STENCIL INK SPRAYCANS	.2(7)	.5(7)	2.7(7)	6.0(7)	.0	.0
XYLENE						
(CONT.)						

TABLE 11 (CONT.) HAZARDOUS WASTE GENERATION FOR 1987

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
NAPTHA						
OTHER MATERIALS						
STA.SET= 19 CAT= CN LACQUER SPRAYCANS PIGMENT SOLIDS VEHICLE SOLIDS TOLUENE XYLENE HYDROCARBON PROPELLANT PETROLEUM DISTILLATES	1.8(7)	4.0(7)	21.8(7)	48.0(7)	.0	.0
STA.SET= 19 CAT= CN ENAMEL SPRAYCANS	3.4(7)	7.5(7)	40.8(7)	90.0(7)	.0	.0
STA.SET= 19 CAT= CN ZINC CHROMATE PRIMER CANS	3.4(7)	7.5(7)	40.8(7)	90.0(7)	.0	.0
STA.SET= 19 CAT= CN CONTAMINATED TARE CUPS EA 911 EPOXY EA 934 EPOXY EA 9309 EPOXY					.0	.0
STA.SET= 19 CAT= CR RAGS WITH SOLVENTS, GREASES	3.8(9)	8.3(9)	45.4(9)	100.0(9)	.0	.0
STA.SET= 19 CAT= CR SOLVENT-CONTAM CHEESECLOTH ISOPROPYL ALCOHOL METHYL ETHYL KETONE 1,1,1-TRICHLOROETHANE					.0	.0
STA.SET= 19 CAT= CR MEK & IPA CONTAM CHEESECLOTH METHYL ETHYL KETONE ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR TCE CONTAMINATED CHEESECLOTH 1,1,1-TRICHLOROETHANE					.0	.0
STA.SET= 19 CAT= CR MEK CONTAMINATED CHEESECLOTH METHYL ETHYL KETONE					.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR SOLID FILM LUBRIC CONT CHSCLTH					.0	.0
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR DICHLOROMETHANE CONT CHSECLTH					.0	.0
STA.SET= 19 CAT= CR CONTAM CLOTHES, CLOTH & DEBRIS KOROPON BASE PRIMER KOROPON ACTIVATOR BERYLLIUM DUST	3.8[10]	8.3[10]	45.4[10]	100.0[10]	.0	.0
STA.SET= 19 CAT= EW WASTEWATER FROM EEW&S	2523.5[4]	5563.3[4]	30281.7[4]	66760.0[4]		
STA.SET= 19 CAT= FS WASTEWATER FROM PAYLOAD/ORB MMH	453.6 45.4	1000.0 100.0	5443.1 544.3	12000.0 1200.0	.0	.0
STA.SET= 19 CAT= FS WASTE FUEL AND PRIMOL 355[11] HYDRAZINE & MMH	30.2 1.5	66.7 3.3	362.9 18.1	800.0 40.0		
STA.SET= 19 CAT= HF VACUUM PUMP OIL TEXACO REGAL OIL 068	3.8	8.3	45.4	100.0	.0	.0
STA.SET= 19 CAT= HS FUEL SCRUBBER HYDRAZINE & MMH	2116.8 42.3	4666.7 93.3	25401.0 508.0	56000.0 1120.0	.0	.0
STA.SET= 19 CAT= HY HYDRAZINE	.0	.0	.0	.0	2494.7[12]	5500.0[12]
STA.SET= 19 CAT= HY HYDRAZINE	56.7	125.0	680.4	1500.0	34.0[12]	75.0[12]
STA.SET= 19 CAT= IN POLYURETHANE FOAM	3.8	8.3	45.4	100.0	.0	.0

TABLE 11 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1987

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= IN ALUMACAST A/B MIXTURE POLYOXPROPLENE PENTAERYTHRITOL AROMATIC WHITE OIL INERT ALUMINIZED PARTICLES DIPHENYLMETHANE DIISOCYANATE POLYMERS OF DPM DIISOCYANATE	.1	.3	1.4	3.0	.0	.0
STA.SET= 19 CAT= IN INSTANT SET POLYMER SCRAPS DIPHENYL METHANE DIISOCYANATE POLY(OXALKYLENE)POLYETHER AROMATIC HYDROCARBONS	1.5(13)	3.3(13)	18.1(13)	40.0(13)	.0	.0
STA.SET= 19 CAT= IN SILANE/ACETIC ACID RESIDUE METHYL TRIMETHOXYSILANE ACETIC ACID	.4	.8	4.5	10.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE	29.5	65.0	353.8	780.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE	7.6	16.7	90.7	200.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	15.6(15)	34.5(15)	187.8(15)	414.0(15)	107.3(12)	236.5(12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	15.6(15)	34.5(15)	187.8(15)	414.0(15)	148.3(12)	327.0(12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	11.1(15)	24.5(15)	133.4(15)	294.0(15)	182.8(12)	403.0(12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	34.7(15)	76.5(15)	416.4(15)	918.0(15)	.0	.0
STA.SET= 19 CAT= NH WASTEWATER WITH AMMONIA	30.2(15)	66.7(15)	362.9(15)	800.0(15)	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	4.5	10.0	54.4	120.0	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	8.2	18.0	98.0	216.0	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	28.6(15)	63.0(15)	342.9(15)	756.0(15)	163.1(12)	359.5(12)

TABLE 11 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1987

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	28.6(15)	63.0(15)	342.9(15)	756.0(15)	232.9(12)	513.5(12)
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	19.9(15)	43.8(15)	238.6(15)	526.0(15)	286.2(12)	631.0(12)
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	66.2(15)	146.0(15)	794.7(15)	1752.0(15)	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	.0	.0	.0	.0	4082.3(12)	9000.0(12)
STA.SET= 19 CAT= OS DECONTAMINATE FROM PAYLOAD/ORB N204	241.9 2.3	533.3 5.0	2903.0 27.2	6400.0 60.0	.0	.0
STA.SET= 19 CAT= OS WASTE OXIDIZER AND PRIMOL 355(11) N204	31.0 2.3	68.3 5.0	371.9 27.2	820.0 60.0	.0	.0
STA.SET= 19 CAT= PA KOROPON PRMER CONT PNT BRUSHES BUTYL ACETATE TALC - Mg SILICATES EPOXY RESIN	15.1(16)	33.3(16)	181.4(16)	400.0(16)	.0	.0
STA.SET= 19 CAT= PA LACQUER #626486	.5(17)	1.1(17)	5.9(17)	13.0(17)	.0	.0
STA.SET= 19 CAT= PA CONTAMINATED BRUSHES ORGANIC ZINC PRIMER ZINC CHROMATE PRIMER	1.5(16)	3.3(16)	18.1(16)	40.0(16)	.0	.0
STA.SET= 19 CAT= PA ORGANIC ZINC PRIMER ZINC DUST BARYTES MOLYBDATE ORANGE SILICA HIGH MOLECULAR WEIGHT EPOXY CELLOSOLVE ACETATE TOLUENE METHYL ETHYL KETONE	4.7(18)	10.4(18)	56.7(18)	125.0(18)	.0	.0
STA.SET= 19 CAT= PA CONTAMINATED PAINT BRUSHES EA 911 EPOXY (CONT.)	1.5(16)	3.3(16)	18.1(16)	40.0(16)	.0	.0

TABLE 11 (CONT.) HAZARDOUS WASTE GENERATION FOR 1987 PAGE 7

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EA 934 EPOXY						
EA 9309 EPOXY						
STA.SET= 19 CAT= SO						
DOPE & LACQUER THINNER	.7	1.5	8.2	18.0	.0	.0
ALIPHATIC NAPTHA	.1	.3	1.4	3.0		
ESTER OR KETONE	.3	.7	3.6	8.0		
ISO- OR n-BUTYL ACETATE	.2	.4	2.3	5.0		
ISO- OR n-BUTYL ALCOHOL	.1	.2	.9	2.0		
STA.SET= 19 CAT= SW						
WASHWATER WITH MEK	35.3	77.9	424.1	935.0	.0	.0
METHYL ETHYL KETONE	5.1	11.3	61.2	135.0		
SUBTOTAL FOR SET 19	5848.8	12894.5	70185.8	154734.0	7731.7	17045.5
STA.SET= 21 CAT= EW						
WASTEWATER FROM EEW&S	2271.1 (4)	5007.0 (4)	27253.5 (4)	60084.0 (4)		
STA.SET= 21 CAT= FS						
WASTEWATER WITH MMH	90.0	198.3	1079.5	2380.0	.0	.0
MMH	8.3	18.3	99.8	220.0		
STA.SET= 21 CAT= HS						
FUEL SCRUBBER	302.4	666.7	3628.7	8000.0	.0	.0
MMH	5.5	12.2	66.2	146.0		
STA.SET= 21 CAT= IN						
TILE REPAIR FOAM	3.8	8.3	45.4	100.0	.0	.0
POLYURETHANE	3.8	8.3	45.4	100.0		
STA.SET= 21 CAT= MH						
MONOMETHYL HYDRAZINE	.0	.0	.0	.0		
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	16329.2 (19)	36000.0 (19)
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	12.5	27.5	149.7	330.0	.0	.0
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	42.7	94.2	512.6	1130.0	.0	.0
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	4898.8 (20)	10800.0 (20)
STA.SET= 21 CAT= OS						
WASTEWATER WITH OXIDIZER	60.6	133.7	727.6	1604.0	.0	.0

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
N204	.5	1.0	5.4	12.0		
STA.SET= 21 CAT= SW						
WASTEWATER WITH MEK	35.3	77.8	423.7	934.0	.0	.0
METHYL ETHYL KETONE	5.1	11.2	60.8	134.0		
STA.SET= 21 CAT= WP						
WASTE SEALS, FILTERS, ETC.	3.8[21]	8.3[21]	45.4[21]	100.0[21]	.0	.0
SUBTOTAL FOR SET 21	2822.2	6221.8	33865.9	74662.0	21228.0	46800.0
STA.SET= 23 CAT= EW						
WASTEWATER FROM EEW&S	2523.5	5563.3	30281.7	66760.0		
STA.SET= 23 CAT= FS						
HYDRAZINE-CONTAM. WASTEWATER	473.2	1043.3	5678.9	12520.0		
HYDRAZINE	23.4	51.7	281.2	620.0		
STA.SET= 23 CAT= FS						
HYDRAZINE-CONTAM. CLNUP WATER	157.6	347.5	1891.5	4170.0		
HYDRAZINE	1.7	3.8	20.9	46.0		
STA.SET= 23 CAT= FS						
WASTEWATER FROM PPR	1892.6	4172.5	22711.3	50070.0		
HYDRAZINE						
STA.SET= 23 CAT= FS						
PRIMOL 355[11]	283.9	625.8	3406.5	7510.0		
HYDRAZINE						
MMH						
STA.SET= 23 CAT= HF						
HYDRAULIC FLUIDS	328.1	723.3	3937.2	8680.0	.0	.0
TETRAORTHOCRESOL PHOSPHATE	328.1	723.3	3937.2	8680.0		
STA.SET= 23 CAT= HS						
HYDRAZINE & MMH SCRUBBER	630.9[18]	1390.8[18]	7570.4[18]	16690.0[18]	.0	.0
HYDRAZINE	14.0	30.8	167.8	370.0		
MMH	11.0	24.2	131.5	290.0		
STA.SET= 23 CAT= HY						
HYDRAZINE	173.5	382.5	2082.0	4590.0	.0	.0
STA.SET= 23 CAT= HY						
LBM PROPELLANT	.0	.0	.0	.0	39689.1[22]	87500.0[22]
PARAHYDRAZINE	.0	.0	.0	.0		

(CONT.)

TABLE 11 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1987

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
UNSYM DIMETHYLHYDRAZINE	.0	.0	.0	.0		
STA.SET= 23 CAT= HY						
HYDRAZINE	.0	.0	.0	.0	2712.7(22)	5980.5(22)
STA.SET= 23 CAT= IN						
K5NA INSULATION	8.7	19.2	104.3	230.0	.0	.0
BUTYL GLYCIDYL ETHER						
EPOXY RESINS, UNCURED						
STA.SET= 23 CAT= MH						
MONOMETHYL HYDRAZINE	275.6	607.5	3306.7	7290.0	.0	.0
STA.SET= 23 CAT= MH						
MONOMETHYL HYDRAZINE	.0	.0	.0	.0	6026.2(22)	13285.5(22)
STA.SET= 23 CAT= NH						
AMMONIA	.0	.0	.0	.0	47.2(22)	104.0(22)
STA.SET= 23 CAT= NO						
NITROGEN TETROXIDE	152.8	336.9	1833.9	4043.0	.0	.0
STA.SET= 23 CAT= NO						
LBM OXIDIZER	.0	.0	.0	.0	39689.1(22)	87500.0(22)
NITROGEN TETROXIDE	.0	.0	.0	.0		
STA.SET= 23 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	14064.9(22)	31008.0(22)
STA.SET= 23 CAT= OS						
N204 CONTAM. CLEANUP WATER	94.5	208.3	1134.0	2500.0		
NITROGEN TETROXIDE	.9	2.1	11.3	25.0		
STA.SET= 23 CAT= OS						
N204 CONTAM. WASTEWATER	315.2	695.0	3782.9	8340.0		
NITROGEN TETROXIDE	23.4	51.7	281.2	620.0		
STA.SET= 23 CAT= OS						
PRIMOL 355(11)	283.9	625.8	3406.5	7510.0		
N204						
STA.SET= 23 CAT= PS						
SRB PROPELLANT SPILL(23)	.0	.0	.0	.0	504301.3(24)	1111800.0(24)
AMMONIUM PERCHLORATE	.0	.0	.0	.0		
ALUMINUM POWDER	.0	.0	.0	.0		
PBAN BINDER	.0	.0	.0	.0		
HTPB BINDER	.0	.0	.0	.0		
IRON OXIDE	.0	.0	.0	.0		
STA.SET= 23 CAT= QW						
DELUGE WATER	473245.6	1043333.4	5678946.0	12520000.0	.0	.0
(CONT.)						

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
ALUMINUM OXIDE	2.8	6.2	33.6	74.0		
AMMONIA	.2	.4	2.3	5.0		
HYDROCHLORIC ACID	302.0	665.8	3624.2	7990.0		
ORGANIC CARBON	2.8	6.3	34.0	75.0		
STA.SET= 23 CAT= SO SOLVENT MIXTURE FREON TMC/MF/TF SYM. TETRACHLOROETHANE	242.9[25]	535.5[25]	2914.8[25]	6426.0[25]	.0	.0
STA.SET= 23 CAT= SO CONTAMINATED SOLVENTS	220.7[26]	486.7[26]	2649.0[26]	5840.0[26]	.0	.0
STA.SET= 23 CAT= SW SOLVENT WASTEWATER UNSPEC.	347.0[18][25]	765.0[18][25]	4164.0[18][25]	9180.0[18][25]	.0	.0
STA.SET= 23 CAT= SW CONTAMINATED WASTEWATER SOLVENTS CHLORINATED RUBBER ZINC PRIMER	789.5[18]	1738.3[18]	9461.9[18]	20860.0[18]	.0	.0
SUBTOTAL FOR SET 23	482438.6	1063600.8	5789264.0	12763210.0	102229.2	225378.0
STA.SET= 31 CAT= AL SURFACTANT NaOH SODIUM TRIPOLYPHOSPHATE					.0	.0
STA.SET= 31 CAT= AW EA 934 EPOXY ADHESIVE	13.2[26][27]	29.2[26][27]	158.8[26][27]	350.0[26][27]	.0	.0
EPOXY RESIN	5.7	12.5	68.0	150.0		
ASBESTOS	1.5	3.3	18.1	40.0		
FILLERS	2.6	5.8	31.8	70.0		
POLYAMIDE	3.0	6.7	36.3	80.0		
DIETHYLENETRIAMINE	.4	.8	4.5	10.0		
STA.SET= 31 CAT= CA CONTAMINATED AIR FILTERS	18.9	41.7	226.8	500.0	.0	.0
STA.SET= 31 CAT= CA CHARCOAL FILTER WASTES					.0	.0
STA.SET= 31 CAT= CA CONTAMINATED AIR FILTERS	18.9	41.7	226.8	500.0	.0	.0
STA.SET= 31 CAT= CN BOSTIK PRIMER PAINT CANS	5.7[6]	12.5[6]	68.0[6]	150.0[6]	.0	.0

TABLE 11 (CONT.) HAZARDOUS WASTE GENERATION FOR 1987 PAGE 11

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 31 CAT= CN BOSTIK TOPCOAT PAINT CANS	17.0(6)	37.5(6)	204.1(6)	450.0(6)	.0	.0
STA.SET= 31 CAT= CN RUSTOLEUM PRIMER PAINT CANS	.8(6)	1.7(6)	9.1(6)	20.0(6)	.0	.0
STA.SET= 31 CAT= CN RUSTOLEUM TOPCOAT PAINT CANS	.8(6)	1.7(6)	9.1(6)	20.0(6)	.0	.0
STA.SET= 31 CAT= CN MSA-1 EMPTY CONTAINERS	378.0(28)	833.3(28)	4535.9(28)	10000.0(28)	.0	.0
STA.SET= 31 CAT= CN K5HA CONTAINERS	2.8	6.3	34.0	75.0	.0	.0
STA.SET= 31 CAT= CN K5HA & MTA-2 PACKING MATERIALS	1890.0(28)	4166.7(28)	22679.5(28)	50000.0(28)	.0	.0
STA.SET= 31 CAT= CR SOLVENT CONTAMINATED RAGS	3.8(9)	8.3(9)	45.4(9)	100.0(9)	.0	.0
STA.SET= 31 CAT= CR ALODINE CONTAMINATED RAGS	1.9(9)	4.2(9)	22.7(9)	50.0(9)	.0	.0
STA.SET= 31 CAT= CR RYMPLE CLOTHS	3.8(9)	8.3(9)	45.4(9)	100.0(9)	.0	.0
STA.SET= 31 CAT= CR PAINT DROP CLOTHS	5.7(9)	12.5(9)	68.0(9)	150.0(9)	.0	.0
STA.SET= 31 CAT= EW WASTEWATER FROM EEW&S	1009.4(4)	2225.3(4)	12112.7(4)	26704.0(4)		
STA.SET= 31 CAT= FO FUEL AND OIL SPILLS	.0	.0	.0	.0		
STA.SET= 31 CAT= FO FUEL & OIL WASTES	31.8	70.0	381.0	840.0	.0	.0
STA.SET= 31 CAT= FS PRIMOL 355(11)	.0	.0	.0	.0		
STA.SET= 31 CAT= HS SCRUBBER EFFLUENT	31.4(18)	69.2(18)	376.5(18)	830.0(18)	.0	.0
STA.SET= 31 CAT= HY HYDRAZINE	91.2	201.1	1094.5	2413.0	.0	.0
STA.SET= 31 CAT= IN MSA-1 (CURED)(29)	75.6(25)	166.7(25)	907.2(25)	2000.0(25)	.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPICHLORHYDRIN/BGE	30.3	66.8	363.3	801.0		
GLASS ECOSPHERES	8.9	19.7	107.0	236.0		
PHENOLIC MICROSPHERES	26.8	59.1	321.6	709.0		
GLASS FIBERS	3.3	7.3	39.9	68.0		
BENTONE 27	2.5	5.6	30.4	67.0		
METHYLENE DIANILINE	2.6	5.8	31.8	70.0		
m-PHENYLENE DIAMINE	1.1	2.4	13.2	29.0		
STA.SET= 31 CAT= IN						
MSA-1, PART A (UNMIXED)(30)					.0	.0
METHYLENE CHLORIDE						
EPICHLORHYDRIN/BGE						
STA.SET= 31 CAT= IN						
MSA-1, PART B (UNMIXED)(30)					.0	.0
METHYLENE CHLORIDE						
PERCHLOROETHYLENE						
METHYLENE DIANILINE						
m-PHENYLENE DIAMINE						
ETHYL ALCOHOL						
PHENOLIC MICROSPHERES						
GLASS ECOSPHERES						
GLASS FIBERS						
BENTONE 27						
STA.SET= 31 CAT= IN						
MTA-2 (CURED)(29)	37.8	83.3	453.6	1000.0	.0	.0
EPICHLORHYDRIN/BGE	11.7	25.8	140.2	309.0		
LP-3, POLYSULFIDE LIQ POLYMER	11.7	25.8	140.2	309.0		
MDA & mPDA	4.6	10.3	55.8	123.0		
STANNOUS OCTOATE	.5	1.0	5.4	12.0		
PHENOLIC MICROSPHERES	9.3	20.6	112.0	247.0		
STA.SET= 31 CAT= IN						
MTA-2 (UNMIXED)(30)	11.3	25.0	136.1	300.0	.0	.0
EPICHLORHYDRIN/BGE	3.5	7.8	42.2	93.0		
LP-3, POLYSULFIDE LIQ POLYMER	3.5	7.8	42.2	93.0		
MDA & mPDA	1.4	3.1	16.8	37.0		
STANNOUS OCTOATE	.2	.3	1.8	4.0		
PHENOLIC MICROSPHERES	2.8	6.2	33.6	74.0		
METHYLENE CHLORIDE						
PERCHLOROETHYLENE						
STA.SET= 31 CAT= IN						
K5NA	6.0	13.3	72.6	160.0	.0	.0
BUTYL GLYCIDYL ETHER						
EPOXY RESINS						
STA.SET= 31 CAT= IN						
INSULATION AND PAPER					.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 31 CAT= PA						
BOSTIK EPOXY PRIMER	10.2	22.5	122.5	270.0	.0	.0
EPOXY RESIN	1.3	2.9	15.9	35.0		
AMINE CURING AGENT	.2	.5	2.7	6.0		
TITANIUM DIOXIDE	.2	.5	2.7	6.0		
CHROMATE PIGMENTS	.5	1.0	5.4	12.0		
INERT PIGMENTS	1.4	3.2	17.2	38.0		
SUSPENSION & FLOW CONTROL ADDI	<.1	.1	.5	1.0		
SOLVENTS	6.1	13.5	73.5	162.0		
STA.SET= 31 CAT= PA						
BOSTIK EPOXY TOPCOAT	14.0	30.8	167.8	370.0	.0	.0
EPICHLORHYDRIN/BISPHENOL A	3.4	7.5	40.8	90.0		
AMINE CURING AGENT	.5	1.2	6.4	14.0		
COLOR PIGMENT	2.8	6.3	34.0	75.0		
SUSPENSION & FLOW CONTROL ADDI	.2	.4	2.3	5.0		
SOLVENTS PHOTOCHEM REACTIVE	1.3	2.9	15.9	35.0		
SOLVENTS NONPHOTOCHEM REACTIVE	5.7	12.5	68.0	150.0		
STA.SET= 31 CAT= PA						
RUSTOLEUM PRIMER	3.0	6.7	36.3	80.0	.0	.0
SILICATES	.5	1.1	5.9	13.0		
YELLOW IRON OXIDE	.2	.5	2.7	6.0		
TITANIUM DIOXIDE	.1	.2	.9	2.0		
CALCIUM BOROSILICATE	.6	1.3	6.8	15.0		
BENTONITE	<.1	<.1	.2	.4		
LINSEED PHENOLIC ALKYL RESIN	.6	1.3	7.3	16.0		
ALIPHATIC HYDROCARBONS	1.0	2.2	11.8	26.0		
DRIERS AND ADDITIVES	.1	.2	.9	2.0		
STA.SET= 31 CAT= PA						
RUSTOLEUM TOPCOAT	3.0	6.7	36.3	80.0	.0	.0
SILICATES	1.0	2.2	11.8	26.0		
TITANIUM DIOXIDE	.5	1.2	6.4	14.0		
BENTONITE CLAY	<.1	<.1	.2	.4		
TINTING COLORS	.1	.2	.9	2.0		
ALKYL RESIN	.5	1.2	6.4	14.0		
ALIPHATIC HYDROCARBONS	.9	2.0	10.9	24.0		
DRIERS & ADDOTIVES	<.1	.1	.5	1.0		
STA.SET= 31 CAT= PA						
GACOFLEX	14.7	32.5	176.9	390.0	.0	.0
TITANIUM DIOXIDE	1.0	2.3	12.2	27.0		
CLAY	1.2	2.6	14.1	31.0		
HYPALON	1.5	3.3	17.7	39.0		
HYDROCARBON RESIN	.3	.7	3.6	8.0		
PERCHLOROETHYLENE	6.9	15.3	83.0	183.0		
1,1,1-TRICHLOROETHANE	3.7	8.2	44.5	98.0		

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPOXIDIZED SOYBEAN OIL	.2	.3	1.8	4.0		
STA.SET= 31 CAT= PA PAINT-SPILL ABSORBANT	.0	.0	.0	.0		
STA.SET= 31 CAT= PW ALODINE CONTAMINATED WASTEWATR	126.2(18)	278.3(18)	1515.0(18)	3340.0(18)	.0	.0
CHROMIC ACID	2.2(31)	4.9(31)	26.8(31)	59.0(31)		
FERRICYANIDE SALT	1.2	2.8	15.0	33.0		
COMPLEX FLUORIDE SALT	<.1	.1	.5	1.0		
STA.SET= 31 CAT= SO PERCHLOROETHYLENE	.5	1.2	6.4	14.0	.0	.0
STA.SET= 31 CAT= SO TRICHLOROETHANE	.4	.9	5.0	11.0	.0	.0
STA.SET= 31 CAT= SO FREON 113	.5	1.1	5.9	13.0	.0	.0
STA.SET= 31 CAT= SO MSA-1 CONTAMINATED MECI	1254.6	2765.8	15054.7	33190.0	.0	.0
STA.SET= 31 CAT= SO MSA-1 CONTAM PERCHLOROETHYLENE	1543.3	3402.5	18520.1	40830.0	.0	.0
STA.SET= 31 CAT= SO PERCHLOROETHYLENE	231.3	510.0	2776.0	6120.0	.0	.0
STA.SET= 31 CAT= SO TRICHLOROETHANE	68.0	150.0	816.5	1800.0	.0	.0
STA.SET= 31 CAT= SO METHYLENE CHLORIDE	213.2	470.0	2558.2	5640.0	.0	.0
STA.SET= 31 CAT= SO MTA-2 CONTAMINATED SOLVENTS	441.5(26)	973.3(26)	5297.9(26)	11680.0(26)	.0	.0
STA.SET= 31 CAT= SO BOSTIK CONTAMINATED SOLVENTS	220.7(26)	486.7(26)	2649.0(26)	5840.0(26)	.0	.0
STA.SET= 31 CAT= SO RUSTOLEUM CONTAMINATED SOLVENT	220.7(26)	486.7(26)	2649.0(26)	5840.0(26)	.0	.0
SUBTOTAL FOR SET 31	8021.7	17685.0	96260.9	212220.0	.0	.0
STA.SET= 32 CAT= BA LITHIUM STORAGE BATTERIES	20.4	45.0	244.9	540.0	.0	.0

TABLE 11 (CONT.) HAZARDOUS WASTE GENERATION FOR 1987 PAGE 15

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 32 CAT= BA						
SILVER-ZINC STORAGE BATTERIES	34.0	75.0	408.2	900.0	.0	.0
STA.SET= 32 CAT= BA						
POTASSIUM HYDROXIDE SOLUTION	7.3[18]	16.0[18]	87.1[18]	192.0[18]	.0	.0
STA.SET= 32 CAT= CB						
HYDRAZINE-CONTAMINATED WATER	90.7[18]	200.0[18]	1088.6[18]	2400.0[18]	.0	.0
STA.SET= 32 CAT= CS						
CONTAMINATED SEAWATER[32]	.0	.0	.0	.0		
STA.SET= 32 CAT= CS						
CONTAMINATED SEAWATER[32]	12095.7	26666.7	145148.8	320000.0	.0	.0
STA.SET= 32 CAT= CW						
SRB FWD SKT CLEANING WASTES					.0	.0
STA.SET= 32 CAT= EW						
WASTEWATER FROM EEW&S	504.7[4]	1112.7[4]	6056.3[4]	13352.0[4]		
STA.SET= 32 CAT= FO						
BILGE WASTES					.0	.0
STA.SET= 32 CAT= FO						
DIESEL FUEL & OIL SPILLS	.0	.0	.0	.0		
STA.SET= 32 CAT= FS						
WASTE FUEL & PRIMOL 355[11]	.0	.0	.0	.0		
HYDRAZINE	.0	.0	.0	.0		
STA.SET= 32 CAT= HS						
HYDRAZINE SCRUBBER EFFLUENT	151.2[18]	333.3[18]	1814.4[18]	4000.0[18]	.0	.0
HYDRAZINE	1.4	3.0	16.3	36.0		
STA.SET= 32 CAT= HY						
HYDRAZINE	34.2	75.4	410.5	905.0	.0	.0
STA.SET= 32 CAT= IN						
INSULATION WASTES, SOLID[33]	604.8[34]	1333.3[34]	7257.4[34]	16000.0[34]	.0	.0
MSA-1 INSULATION						
MTA-2 INSULATION						
K5NA INSULATION						
PR-855 INSULATION						
STA.SET= 32 CAT= IN						
INSULATION CONTAM FILTERS	3.8[21]	8.3[21]	45.4[21]	100.0[21]	.0	.0
STA.SET= 32 CAT= IW						
INSULATION-CONTAMINATED WATER[33]	154409.6[18]	340416.7[18]	1852915.0[18]	4085000.0[18]	.0	.0

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
MSA-1 INSULATION						
MTA-2 INSULATION						
K5NA INSULATION						
PR-855 INSULATION						
STA.SET= 32 CAT= PR						
PRESERVATIVE CHEMICALS					.0	.0
PROTECTIVE LUBRICANTS						
STA.SET= 32 CAT= PS						
SRB SOLID PROPELLANT	.0	.0	.0	.0	78.5[24]	173.0[24]
AMMONIUM PERCHLORATE	.0	.0	.0	.0		
ALUMINUM POWDER	.0	.0	.0	.0		
FERRIC OXIDE	.0	.0	.0	.0		
POLYMER & EPOXY RESIN	.0	.0	.0	.0		
STA.SET= 32 CAT= SB						
DETERGENT WASHWATER[35]	29029.8	64000.0	348357.1	768000.0	.0	.0
STA.SET= 32 CAT= SB						
POTABLE RINSE WATER	100394.6	221333.3	1204735.0	2656000.0	.0	.0
STA.SET= 32 CAT= SB						
DEIONIZED RINSE WATER	46991.9	103600.0	563903.0	1243200.0	.0	.0
STA.SET= 32 CAT= SI						
SRB RINSE WATER	18143.6	40000.0	217723.2	480000.0	.0	.0
STA.SET= 32 CAT= SO						
SOLVENTS	8.8[26]	19.5[26]	106.1[26]	234.0[26]	.0	.0
FREON TMC/TM						
SOLVENTS, UNSPECIFIED						
SUBTOTAL FOR SET 32	362525.1	799235.4	4350302.0	9590824.0	.0	.0
STA.SET= 33 CAT= CA						
AIR FILTERS	3.8[21]	8.3[21]	45.4[21]	100.0[21]	.0	.0
STA.SET= 33 CAT= EW						
WASTEWATER FROM EEW&S	157.6	347.5	1891.5	4170.0		
STA.SET= 33 CAT= HF						
HYDRAULIC FLUIDS					.0	.0
SUBTOTAL FOR SET 33	161.4	355.8	1936.8	4270.0	.0	.0

TABLE 11 (CONT.)

HAZARDOUS WASTE GENERATION FOR 1987

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 99 CAT= AW						
GX-6300 ABLATOR ADHESIVE	4.9	10.8	59.0	130.0	.0	.0
RESIN STM L 663	.5	1.1	5.9	13.0		
RESIN STM L 664	1.8	4.0	21.8	48.0		
SILICA POWDER	.2	.3	1.8	4.0		
CARBON POWDER	.2	.3	1.8	4.0		
CURING AGENT L 663	.2	.4	2.3	5.0		
CURING AGENT L 664	<.1	.1	.5	1.0		
HEPTANE	2.0	4.3	23.6	52.0		
XYLENE	.1	.3	1.4	3.0		
STA.SET= 99 CAT= AW						
ISOCHEM POLYESTER RESIN ADHESV	4.9	10.8	59.0	130.0	.0	.0
STYRENE						
MEK PEROXIDE CATALYST						
DIMETHYL PHTHALATE						
STA.SET= 99 CAT= CA						
FILTER					.0	.0
STA.SET= 99 CAT= CN						
SOLVENT CONTAMINATED CONTAINER	1.9[28]	4.2[28]	22.7[28]	50.0[28]	.0	.0
SOLVENTS[36]						
STA.SET= 99 CAT= CN						
PRIMER CONTAMINATED CONTAINERS	.3[28]	.6[28]	3.2[28]	7.0[28]	.0	.0
STA.SET= 99 CAT= CN						
ADHESIVE CONTAMINATED CONTAINR	.3[28]	.6[28]	3.2[28]	7.0[28]	.0	.0
STA.SET= 99 CAT= CN						
SOLVENT CONTAINERS					.0	.0
STA.SET= 99 CAT= CN						
POUR FOAM CONTAINERS	18.9[28]	41.7[28]	226.8[28]	500.0[28]	.0	.0
STA.SET= 99 CAT= CN						
ABLATOR CONTAMINATED CONTAINER	.3[28]	.6[28]	3.2[28]	7.0[28]	.0	.0
STA.SET= 99 CAT= CR						
SOLVENT CONTAMINATED RAGS	3.8[9]	8.3[9]	45.4[9]	100.0[9]	.0	.0
STA.SET= 99 CAT= CR						
ADHESIVE CONTAMINATED RAGS	3.8[9]	8.3[9]	45.4[9]	100.0[9]	.0	.0
STA.SET= 99 CAT= CR						
EPOXY PRIMER-CONTAMINATED RAGS	1.9[9]	4.2[9]	22.7[9]	50.0[9]	.0	.0
STA.SET= 99 CAT= IN						
BX-250 FOAM (SOFI)	98.3	216.7	1179.3	2600.0	.0	.0

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
DIPHENYL METHANE DIISOCYANATE	24.6	54.2	294.8	650.0		
FREON 11	15.9	35.0	190.5	420.0		
AMINES	8.7	19.2	104.3	230.0		
POLYOLS						
SUPER MEK PEROXIDE						
POLYESTER RESIN						
DIMETHYL PHTHALATE						
STA.SET= 99 CAT= IN						
POUR FOAM (MIXED)[29]	103.9[37]	229.2[37]	1247.4[37]	2750.0[37]	.0	.0
POLYURETHANE						
STA.SET= 99 CAT= IN						
POUR FOAM PART A (UNMIXED)[30]	5.3	11.7	63.5	140.0	.0	.0
DIPHENYL METHANE DIISOCYANATE	2.6	5.8	31.8	70.0		
FREON 11	1.7	3.8	20.4	45.0		
POLYOLS, AMINES	.9	2.1	11.3	25.0		
STA.SET= 99 CAT= IN						
POUR FOAM PART B (UNMIXED)[30]	5.3	11.7	63.5	140.0	.0	.0
FREON 11	1.1	2.3	12.7	28.0		
AMINE CATALYST	.1	.3	1.4	3.0		
POLYETHER POLYOL BLEND	4.1	9.1	49.4	109.0		
STA.SET= 99 CAT= IN						
POUR FOAM CONTAMINATED PAPER	1.2[28]	2.8[28]	15.0[28]	33.0[28]	.0	.0
STA.SET= 99 CAT= IN						
SUPER LIGHT ABLATOR (I)	3.8	8.3	45.4	100.0	.0	.0
RESIN L664, PT A	2.2	4.9	26.8	59.0		
SILICA FIBERS	.2	.5	2.7	6.0		
CORK	.5	1.0	5.4	12.0		
PHENOLIC MICROSPHERES	.1	.3	1.4	3.0		
SILICA MICROSPHERES	.5	1.2	6.4	14.0		
CURING AGENT	.2	.5	2.7	6.0		
STA.SET= 99 CAT= IN						
SUPER LIGHT ABLATOR (II)	3.8	8.3	45.4	100.0	.0	.0
RESIN STM L664, PT A	1.1	2.5	13.6	30.0		
CARBON POWDER						
SILICA FIBERS						
CORK						
SILICA MICROSPHERES						
PHENOLIC MICROSPHERES						
CURING AGENT STM L664, PT B	.6	1.4	7.7	17.0		
STA.SET= 99 CAT= IN						
POUR FOAM "TRIMMINGS"	3.8	8.3	45.4	100.0	.0	.0
POLYURETHANE						

TABLE 11 (CONT.) HAZARDOUS WASTE GENERATION FOR 1987

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 99 CAT= PA EPOXY PRIMER METHYLENE ISOBUTYL KETONE XYLENE CYCLOHEXANONE CHROMATES INORGANIC PIGMENTS N-BUTANOL TOLUENE AMINO SILANE METHYL ETHYL KETONE	<.1 (27)	.1 (27)	.5 (27)	1.0 (27)	.0	.0
STA.SET= 99 CAT= PA D.C. 1200 VM AND P NAPTHA ORGANOMETALLIC SALTS	<.1 (27)	.1 (27)	.5 (27)	1.0 (27)	.0	.0
STA.SET= 99 CAT= SO FREON TMC	.1 (27)	.3 (27)	1.4 (27)	3.0 (27)	.0	.0
STA.SET= 99 CAT= SO 1,1,1-TRICHLOROETHANE	.1 (27)	.3 (27)	1.4 (27)	3.0 (27)	.0	.0
STA.SET= 99 CAT= SO MEK & CELLOSOLVE	10.2	22.4	122.0	269.0	.0	.0
STA.SET= 99 CAT= SO HEPTANE	62.6	137.9	750.7	1655.0	.0	.0
STA.SET= 99 CAT= SO CELLOSOLVE ACETATE	89.2	196.7	1070.5	2360.0	.0	.0
STA.SET= 99 CAT= SO METHYL ETHYL KETONE	73.7	162.4	884.0	1949.0	.0	.0
STA.SET= 99 CAT= SR SOLVENT REDUCER METHYL ETHYL KETONE CYCLOHEXANONE	.5 .3 .2	1.0 .7 .3	5.4 3.6 1.8	12.0 8.0 4.0	.0	.0
STA.SET= 99 CAT= SW SOLVENT CONTAMINATED WATER	67.5	148.8	810.1	1786.0	.0	.0
SUBTOTAL FOR SET 99	570.1	1256.9	6841.5	15083.0	.0	.0
TOTAL FOR ALL SETS	866643.6	1910632.3	10399724.0	22927588.0	131188.9	289223.5

TABLE 11 (CONT.) HAZARDOUS WASTE GENERATION FOR 1987 PAGE 20
SUMMARY BY CATEGORY

CATEGORY	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
SO	6884.6	15177.9	82614.6	182135.0	.0	.0
EW	11260.9	24826.2	135130.8	297914.1	.0	.0
FO	31.8	70.0	381.0	840.0	.0	.0
FS	3381.1	7454.2	40573.6	89450.0	.0	.0
OS	1027.2	2264.5	12325.9	27174.0	.0	.0
HF	335.5	739.6	4025.6	8875.0	.0	.0
AW	24.0	52.9	288.0	635.0	.0	.0
CN	2333.9	5145.4	28006.9	61745.0	.0	.0
CR	32.1	70.8	385.6	850.0	.0	.0
HS	3232.6	7126.7	38791.0	85520.0	.0	.0
HY	355.6	784.0	4267.4	9408.0	44930.6	99055.5
IN	983.0	2167.2	11796.1	26006.0	.0	.0
MH	389.7	859.2	4676.5	10310.0	6464.6	14252.0
NH	30.2	66.7	362.9	800.0	47.2	104.0
NJ	364.0	802.4	4367.6	9629.0	65050.2	143412.0
PA	68.4	150.8	821.0	1810.0	.0	.0
SW	1273.6	2807.9	15283.7	33695.0	.0	.0
WP	3.8	8.3	45.4	100.0	.0	.0
PS	.0	.0	.0	.0	504379.8	1111973.0
QW	473245.6	1043333.4	5678946.0	12520000.0	.0	.0
AL	.0	.0	.0	.0	.0	.0
CA	41.6	91.7	498.9	1100.0	.0	.0
PW	126.2	278.3	1515.0	3340.0	.0	.0
BA	61.7	136.0	740.3	1632.0	.0	.0
CB	90.7	200.0	1088.6	2400.0	.0	.0
CS	12095.7	26666.7	145148.8	320000.0	.0	.0
CW	.0	.0	.0	.0	.0	.0
IW	154409.6	340416.7	1852915.0	4085000.0	.0	.0
PR	.0	.0	.0	.0	.0	.0
SB	176416.3	388933.3	2116995.0	4667200.0	.0	.0
SI	18143.6	40000.0	217723.2	480000.0	.0	.0
SR	.5	1.0	5.4	12.0	.0	.0

* For footnotes, see Table 8.

TABLE 12. HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994 * PAGE 1

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 0 (2) CAT= SO CONTAMINATED FREON	2971.0 (3)	6550.0 (3)	35652.2 (3)	78600.0 (3)	.0	.0
SUBTOTAL FOR SET 0	2971.0	6550.0	35652.2	78600.0	.0	.0
STA.SET= 17 CAT= EW WASTEWATER FROM EEW&S	3406.7	7510.5	40880.3	90126.0	.0	.0
STA.SET= 17 CAT= FO DIESEL FUEL					.0	.0
STA.SET= 17 CAT= FO DIESEL FUEL & OIL					.0	.0
STA.SET= 17 CAT= FS CONTAMINATED DILUTION WATER	.0	.0	.0	.0		
MMH	.0	.0	.0	.0		
STA.SET= 17 CAT= OS CONTAMINATED DILUTION WATER	.0	.0	.0	.0		
N204	.0	.0	.0	.0		
SUBTOTAL FOR SET 17	3406.7	7510.5	40880.3	90126.0	.0	.0
STA.SET= 18 CAT= HF HYDRAULIC FLUIDS	5.4	11.9	64.6	142.5	.0	.0
SUBTOTAL FOR SET 18	5.4	11.9	64.6	142.5	.0	.0
STA.SET= 19 CAT= AW TPS ADHESIVE, RTV 566/577	1.4	3.1	17.0	37.5	.0	.0
PHENYL METHYL POLYSILOXANE						
TIN OXIDE						
IRON OXIDE						
SILICON						
HARDENER						
STA.SET= 19 CAT= AW EA 911 EPOXY					.0	.0
(CONT.)						

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994 PAGE 2

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPOXY						
ZINC CHROMATE						
ASBESTOS						
MERCAPTAN						
DIMETHYLAMINE						
STA.SET= 19 CAT= AW						
EA 934 EPOXY						
EPOXY RESIN					.0	.0
ASBESTOS						
STA.SET= 19 CAT= AW						
EA 9309 EPOXY						
EPOXY RESIN					.0	.0
GLASS FIBERS						
ACRYLONITRILE/BUTADIEN/STYRENE						
ASBESTOS						
POLYGLYCOL DIAMINE						
SILANE						
STA.SET= 19 CAT= CN						
SPRAYCANS OF TPS SEALER						
FLUORINATED SOLVENT					.0	.0
FREON 113						
STA.SET= 19 CAT= CN						
KOROPON PRIMER CONTAM CANS	8.5(6)	18.8(6)	102.1(6)	225.0(6)	.0	.0
BUTYL ACETATE						
METHYL ETHYL KETONE						
TOLUENE						
TALC - Mg SILICATES						
EPOXY RESIN						
STA.SET= 19 CAT= CN						
LACQUER SPRAY CANS	3.4(7)	7.5(7)	40.8(7)	90.0(7)	.0	.0
PIGMENT SOLIDS						
VEHICLE SOLIDS						
TOLUENE						
XYLENE						
HYDROCARBON PROPELLANT						
PETROLEUM DISTILLATES						
STA.SET= 19 CAT= CN						
ISP CONTAM CUPS & WOOD STICKS	.9(8)	1.9(8)	10.2(8)	22.5(8)	.0	.0
INSTANT SET POLYMER						
STA.SET= 19 CAT= CN						
MARSHALL STENCIL INK SPRAYCANS	.3(7)	.8(7)	4.1(7)	9.0(7)	.0	.0
XYLENE						
(CONT.)						

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994 PAGE 3

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
NAPTHA						
OTHER MATERIALS						
STA.SET= 19 CAT= CN LACQUER SPRAYCANS	2.7(7)	6.0(7)	32.7(7)	72.0(7)	.0	.0
PIGMENT SOLIDS						
VEHICLE SOLIDS						
TOLUENE						
XYLENE						
HYDROCARBON PROPELLANT						
PETROLEUM DISTILLATES						
STA.SET= 19 CAT= CN ENAMEL SPRAYCANS	5.1(7)	11.3(7)	61.2(7)	135.0(7)	.0	.0
STA.SET= 19 CAT= CN ZINC CHROMATE PRIMER CANS	5.1(7)	11.3(7)	61.2(7)	135.0(7)	.0	.0
STA.SET= 19 CAT= CN CONTAMINATED TARE CUPS					.0	.0
EA 911 EPOXY						
EA 934 EPOXY						
EA 9309 EPOXY						
STA.SET= 19 CAT= CR RAGS WITH SOLVENTS, GREASES	5.7(9)	12.5(9)	68.0(9)	150.0(9)	.0	.0
STA.SET= 19 CAT= CR SOLVENT-CONTAM CHEESECLOTH					.0	.0
ISOPROPYL ALCOHOL						
METHYL ETHYL KETONE						
1,1,1-TRICHLOROETHANE						
STA.SET= 19 CAT= CR MEK & IPA CONTAM CHEESECLOTH					.0	.0
METHYL ETHYL KETONE						
ISOPROPYL ALCOHOL						
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH					.0	.0
ISOPROPYL ALCOHOL						
STA.SET= 19 CAT= CR TCE CONTAMINATED CHEESECLOTH					.0	.0
1,1,1-TRICHLOROETHANE						
STA.SET= 19 CAT= CR MEK CONTAMINATED CHEESECLOTH					.0	.0
METHYL ETHYL KETONE						

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994 PAGE 4

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR SOLID FILM LUBRIC CONT CHSCLTH					.0	.0
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR DICHLOROMETHANE CONT CHSECLTH					.0	.0
STA.SET= 19 CAT= CR CONTAM CLOTHES, CLOTH & DEBRIS KOROPON BASE PRIMER KOROPON ACTIVATOR BERYLLIUM DUST	5.7(10)	12.5(10)	68.0(10)	150.0(10)	.0	.0
STA.SET= 19 CAT= EW WASTEWATER FROM EEW&S	3785.2(4)	8345.0(4)	45422.5(4)	100140.0(4)		
STA.SET= 19 CAT= FS WASTEWATER FROM PAYLOAD/ORB MMH	680.4 68.0	1500.0 150.0	8164.6 816.5	18000.0 1800.0	.0	.0
STA.SET= 19 CAT= FS WASTE FUEL AND PRIMOL 355(11) HYDRAZINE & MMH	45.4 2.3	100.0 5.0	544.3 27.2	1200.0 60.0		
STA.SET= 19 CAT= HF VACUUM PUMP OIL TEXACO REGAL OIL 068	5.7	12.5	68.0	150.0	.0	.0
STA.SET= 19 CAT= HS FUEL SCRUBBER HYDRAZINE & MMH	3175.1 63.5	7000.0 140.0	38101.6 762.0	84000.0 1680.0	.0	.0
STA.SET= 19 CAT= HY HYDRAZINE	.0	.0	.0	.0	2494.7(12)	5500.0(12)
STA.SET= 19 CAT= HY HYDRAZINE	85.0	187.5	1020.6	2250.0	34.0(12)	75.0(12)
STA.SET= 19 CAT= IN POLYURETHANE FOAM	5.7	12.5	68.0	150.0	.0	.0

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994 PAGE 5

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= IN ALUMACAST A/B MIXTURE POLYOXPROPLENE PENTAERYTHRITOL AROMATIC WHITE OIL INERT ALUMINIZED PARTICLES DIPHENYLMETHANE DIISOCYANATE POLYMERS OF DPM DIISOCYANATE	.2	.4	2.0	4.5	.0	.0
STA.SET= 19 CAT= IN INSTANT SET POLYMER SCRAPS DIPHENYL METHANE DIISOCYANATE POLY(OXALKYLENE)POLYETHER AROMATIC HYDROCARBONS	2.3(13)	5.0(13)	27.2(13)	60.0(13)	.0	.0
STA.SET= 19 CAT= IN SILANE/ACETIC ACID RESIDUE METHYL TRIMETHOXYSILANE ACETIC ACID	.6	1.3	6.8	15.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE	44.2	97.5	530.7	1170.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE	11.3	25.0	136.1	300.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	23.5(15)	51.8(15)	281.7(15)	621.0(15)	107.3(12)	236.5(12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	23.5(15)	51.0(15)	281.7(15)	621.0(15)	148.3(12)	327.0(12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	16.7(15)	36.8(15)	200.0(15)	441.0(15)	182.8(12)	403.0(12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE(14)	52.0(15)	114.8(15)	624.6(15)	1377.0(15)	.0	.0
STA.SET= 19 CAT= MH WASTEWATER WITH AMMONIA	45.4(15)	100.0(15)	544.3(15)	1200.0(15)	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	6.8	15.0	81.6	180.0	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	12.2	27.0	147.0	324.0	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	42.9(15)	94.5(15)	514.4(15)	1134.0(15)	163.1(12)	359.5(12)

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994 PAGE 6

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	42.9(15)	94.5(15)	514.4(15)	1134.0(15)	232.9(12)	513.5(12)
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	29.8(15)	65.8(15)	357.9(15)	789.0(15)	286.2(12)	631.0(12)
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	99.3(15)	219.0(15)	1192.0(15)	2628.0(15)	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	.0	.0	.0	.0	4082.3(12)	9000.0(12)
STA.SET= 19 CAT= OS DECONTAMINATE FROM PAYLOAD/ORB	362.9	800.0	4354.5	9600.0	.0	.0
N204	3.4	7.5	40.8	90.0		
STA.SET= 19 CAT= OS WASTE OXIDIZER AND PRIMOL 355(11)	46.5	102.5	557.9	1230.0	.0	.0
N204	3.4	7.5	40.8	90.0		
STA.SET= 19 CAT= PA KOROPON PRMER CONT PNT BRUSHES BUTYL ACETATE TALC - Mg SILICATES EPOXY RESIN	22.7(16)	50.0(16)	272.2(16)	600.0(16)	.0	.0
STA.SET= 19 CAT= PA LACQUER #626486	.7(17)	1.6(17)	8.8(17)	19.5(17)	.0	.0
STA.SET= 19 CAT= PA CONTAMINATED BRUSHES ORGANIC ZINC PRIMER ZINC CHROMATE PRIMER	2.3(16)	5.0(16)	27.2(16)	60.0(16)	.0	.0
STA.SET= 19 CAT= PA ORGANIC ZINC PRIMER ZINC DUST BARYTES MOLYBDATE ORANGE SILICA HIGH MOLECULAR WEIGHT EPOXY CELLOSOLVE ACETATE TOLUENE METHYL ETHYL KETONE	7.1(18)	15.6(18)	85.0(18)	187.5(18)	.0	.0
STA.SET= 19 CAT= PA CONTAMINATED PAINT BRUSHES EA 911 EPOXY (CONT.)	2.3(16)	5.0(16)	27.2(16)	60.0(16)	.0	.0

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EA 934 EPOXY						
EA 9309 EPOXY						
STA.SET= 19 CAT= SO						
DOPE & LACQUER THINNER	1.0	2.3	12.2	27.0	.0	.0
ALIPHATIC NAPTHA	.2	.4	2.0	4.5		
ESTER OR KETONE	.5	1.0	5.4	12.0		
ISO- OR n-BUTYL ACETATE	.3	.6	3.4	7.5		
ISO- OR n-BUTYL ALCOHOL	.1	.3	1.4	3.0		
STA.SET= 19 CAT= SW						
WASHWATER WITH MEK	53.0	116.9	636.2	1402.5	.0	.0
METHYL ETHYL KETONE	7.7	16.9	91.9	202.5		
SUBTOTAL FOR SET 19	8773.2	19341.8	105278.7	232101.0	7731.7	17045.5
STA.SET= 21 CAT= EW						
WASTEWATER FROM EEW&S	3406.7(4)	7510.5(4)	40880.3(4)	90126.0(4)		
STA.SET= 21 CAT= FS						
WASTEWATER WITH MMH	134.9	297.5	1619.3	3570.0	.0	.0
MMH	12.5	27.5	149.7	330.0		
STA.SET= 21 CAT= HS						
FUEL SCRUBBER	453.6	1000.0	5443.1	12000.0	.0	.0
MMH	8.3	18.3	99.3	219.0		
STA.SET= 21 CAT= IN						
TILE REPAIR FOAM	5.7	12.5	68.0	150.0	.0	.0
POLYURETHANE	5.7	12.5	68.0	150.0		
STA.SET= 21 CAT= MH						
MONOMETHYL HYDRAZINE	.0	.0	.0	.0	.0	.0
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	24493.9(19)	54000.0(19)
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	18.7	41.3	224.5	495.0	.0	.0
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	64.1	141.3	768.8	1695.0	.0	.0
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	4898.8(20)	10800.0(20)
STA.SET= 21 CAT= OS						
WASTEWATER WITH OXIDIZER	90.9	200.5	1091.3	2406.0	.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
N204	.7	1.5	8.2	18.0		
STA.SET= 21 CAT= SW						
WASTEWATER WITH MEK	53.0	116.8	635.5	1401.0	.0	.0
METHYL ETHYL KETONE	7.6	16.8	91.2	201.0		
STA.SET= 21 CAT= WP						
WASTE SEALS, FILTERS, ETC.	5.7(21)	12.5(21)	68.0(21)	150.0(21)	.0	.0
SUBTOTAL FOR SET 21	4233.2	9332.8	50798.9	111993.0	29392.6	64800.0
STA.SET= 23 CAT= EW						
WASTEWATER FROM EEW&S	3785.2	8345.0	45422.5	100140.0		
STA.SET= 23 CAT= FS						
HYDRAZINE-CONTAM. WASTEWATER	709.9	1565.0	8518.4	18780.0		
HYDRAZINE	35.2	77.5	421.8	930.0		
STA.SET= 23 CAT= FS						
HYDRAZINE-CONTAM. CLNUP WATER	236.4	521.3	2837.2	6255.0		
HYDRAZINE	2.6	5.8	31.3	69.0		
STA.SET= 23 CAT= FS						
WASTEWATER FROM PPR	2838.9	6258.8	34066.9	75105.0		
HYDRAZINE						
STA.SET= 23 CAT= FS						
PRIMOL 355(11)	425.8	938.8	5109.7	11265.0		
HYDRAZINE						
MMH						
STA.SET= 23 CAT= HF						
HYDRAULIC FLUIDS	492.1	1085.0	5905.7	13020.0	.0	.0
TETRAORTHOCRESOL PHOSPHATE	492.1	1085.0	5905.7	13020.0		
STA.SET= 23 CAT= HS						
HYDRAZINE & MMH SCRUBBER	946.3(18)	2086.3(18)	11355.6(18)	25035.0(18)	.0	.0
HYDRAZINE	21.0	46.3	251.7	555.0		
MMH	16.4	36.3	197.3	435.0		
STA.SET= 23 CAT= HY						
HYDRAZINE	260.2	573.8	3123.0	6885.0	.0	.0
STA.SET= 23 CAT= HY						
LBM PROPELLANT	.0	.0	.0	.0	39689.1(22)	87500.0(22)
PARAHYDRAZINE	.0	.0	.0	.0		

(CONT.)

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994 PAGE 9

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
UNSYM DIMETHYLHYDRAZINE	.0	.0	.0	.0		
STA.SET= 23 CAT= HY HYDRAZINE	.0	.0	.0	.0	2712.7[22]	5980.5[22]
STA.SET= 23 CAT= IN K5HA INSULATION BUTYL GLYCIDYL ETHER EPOXY RESINS, UNCURED	13.0	28.8	156.5	345.0	.0	.0
STA.SET= 23 CAT= MH MONOMETHYL HYDRAZINE	413.3	911.3	4960.0	10935.0	.0	.0
STA.SET= 23 CAT= MH MONOMETHYL HYDRAZINE	.0	.0	.0	.0	6026.2[22]	13285.5[22]
STA.SET= 23 CAT= NH AMMONIA	.0	.0	.0	.0	47.2[22]	104.0[22]
STA.SET= 23 CAT= NO NITROGEN TETROXIDE	229.2	505.4	2750.8	6064.5	.0	.0
STA.SET= 23 CAT= NO LBM OXIDIZER NITROGEN TETROXIDE	.0 .0	.0 .0	.0 .0	.0 .0	39689.1[22]	87500.0[22]
STA.SET= 23 CAT= NO NITROGEN TETROXIDE	.0	.0	.0	.0	14064.9[22]	31008.0[22]
STA.SET= 23 CAT= OS N204 CONTAM. CLEANUP WATER NITROGEN TETROXIDE	141.7 1.4	312.5 3.1	1701.0 17.0	3750.0 37.5		
STA.SET= 23 CAT= OS N204 CONTAM. WASTEWATER NITROGEN TETROXIDE	472.9 35.2	1042.5 77.5	5674.4 421.8	12510.0 930.0		
STA.SET= 23 CAT= OS PRIMOL 355[11] N204	425.8	938.8	5109.7	11265.0		
STA.SET= 23 CAT= PS SRB PROPELLANT SPILL[23] AMMONIUM PERCHLORATE ALUMINUM POWDER PBAN BINDER HTPB BINDER IRON OXIDE	.0 .0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0 .0	504301.3[24]	1111800.0[24]
STA.SET= 23 CAT= QW DELUGE WATER (CONT.)	709868.3	1565000.0	8518420.0	18780000.0	.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
ALUMINU OXIDE	4.2	9.3	50.3	111.0		
AMMONIA	.3	.6	3.4	7.5		
HYDROCHL TIC ACID	453.0	998.8	5436.3	11985.0		
ORGANIC BON	4.3	9.4	51.0	112.5		
STA.SET= 23 CAT= SO						
SOLVENT TURE	364.3[25]	803.3[25]	4372.2[25]	9639.0[25]	.0	.0
FREON TF/TF						
SYM. TE LOROETHANE						
STA.SET= 23 CAT= SO						
CONTAMINATED SOLVENTS	331.1[26]	730.0[26]	3973.4[26]	8760.0[26]	.0	.0
STA.SET= 23 CAT= SW						
SOLVENT WASTEWATER UNSPEC.	520.5[18][25]	1147.5[18][25]	6245.9[18][25]	13770.0[18][25]	.0	.0
STA.SET= 23 CAT= SW						
CONTAMINATED WASTEWATER	1182.7[18]	2607.5[18]	14192.8[18]	31290.0[18]	.0	.0
SOLVENTS						
CHLORINATED RUBBER						
ZINC PRIMER						
SUBTOTAL FOR SET 23	723659.3	1595401.8	8683898.0	19144820.0	102229.2	225378.0
STA.SET= 31 CAT= AL						
SURFACTANT					.0	.0
NaOH						
SODIUM TRIPOLYPHOSPHATE						
STA.SET= 31 CAT= AW						
EA 934 EPOXY ADHESIVE	19.8[26][27]	43.8[26][27]	238.1[26][27]	525.0[26][27]	.0	.0
EPOXY RESIN	8.5	18.8	102.1	225.0		
ASBESTOS	2.3	5.0	27.2	60.0		
FILLERS	4.0	8.8	47.6	105.0		
POLYAMIDE	4.5	10.0	54.4	120.0		
DIETHYLENETRIAMINE	.6	1.3	6.8	15.0		
STA.SET= 31 CAT= CA						
CONTAMINATED AIR FILTERS	28.3	62.5	340.2	750.0	.0	.0
STA.SET= 31 CAT= CA						
CHARCOAL FILTER WASTES					.0	.0
STA.SET= 31 CAT= CA						
CONTAMINATED AIR FILTERS	28.3	62.5	340.2	750.0	.0	.0
STA.SET= 31 CAT= CN						
BOSTIK PRIMER PAINT CANS	8.5[6]	18.8[6]	102.1[6]	225.0[6]	.0	.0

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994 PAGE 11

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 31 CAT= CN BOSTIK TOPCOAT PAINT CANS	25.5[6]	56.3[6]	306.2[6]	675.0[6]	.0	.0
STA.SET= 31 CAT= CN RUSTOLEUM PRIMER PAINT CANS	1.1[6]	2.5[6]	13.6[6]	30.0[6]	.0	.0
STA.SET= 31 CAT= CN RUSTOLEUM TOPCOAT PAINT CANS	1.1[6]	2.5[6]	13.6[6]	30.0[6]	.0	.0
STA.SET= 31 CAT= CN MSA-1 EMPTY CONTAINERS	567.0[28]	1250.0[28]	6803.8[28]	15000.0[28]	.0	.0
STA.SET= 31 CAT= CN K5HA CONTAINERS	4.3	9.4	51.0	112.5	.0	.0
STA.SET= 31 CAT= CN K5HA & MTA-2 PACKING MATERIALS	2834.9[28]	6250.0[28]	34019.3[28]	75000.0[28]	.0	.0
STA.SET= 31 CAT= CR SOLVENT CONTAMINATED RAGS	5.7[9]	12.5[9]	68.0[9]	150.0[9]	.0	.0
STA.SET= 31 CAT= CR ALODINE CONTAMINATED RAGS	2.8[9]	6.3[9]	34.0[9]	75.0[9]	.0	.0
STA.SET= 31 CAT= CR RYMPLE CLOTHS	5.7[9]	12.5[9]	68.0[9]	150.0[9]	.0	.0
STA.SET= 31 CAT= CR PAINT DROP CLOTHS	8.5[9]	18.8[9]	102.1[9]	225.0[9]	.0	.0
STA.SET= 31 CAT= EW WASTEWATER FROM EEW&S	1514.1[4]	3338.0[4]	18169.0[4]	40056.0[4]		
STA.SET= 31 CAT= FO FUEL AND OIL SPILLS	.0	.0	.0	.0		
STA.SET= 31 CAT= FO FUEL & OIL WASTES	47.6	105.0	571.5	1260.0	.0	.0
STA.SET= 31 CAT= FS PRIMOL 355[11]	.0	.0	.0	.0		
STA.SET= 31 CAT= HS SCRUBBER EFFLUENT	47.1[18]	103.8[18]	564.7[18]	1245.0[18]	.0	.0
STA.SET= 31 CAT= HY HYDRAZINE	136.8	301.6	1641.8	3619.5	.0	.0
STA.SET= 31 CAT= IN MSA-1 (CURED)[29]	113.4[25]	250.0[25]	1360.8[25]	3000.0[25]	.0	.0

TABLE 12 (CONT.)

HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPICHLORHYDRIN/BGE	45.4	100.1	545.0	1201.5		
GLASS ECOSPHERES	13.4	29.5	160.6	354.0		
PHENOLIC MICROSPHERES	40.2	88.6	482.4	1063.5		
GLASS FIBERS	5.0	11.0	59.9	132.0		
BENTONE 27	3.8	8.4	45.6	100.5		
METHYLENE DIANILINE	4.0	8.8	47.6	105.0		
m-PHENYLENE DIAMINE	1.6	3.6	19.7	43.5		
STA.SET= 31 CAT= IN MSA-1, PART A (UNMIXED)(30)					.0	.0
METHYLENE CHLORIDE						
EPICHLORHYDRIN/BGE						
STA.SET= 31 CAT= IN MSA-1, PART B (UNMIXED)(29)					.0	.0
METHYLENE CHLORIDE						
PERCHLOROETHYLENE						
METHYLENE DIANILINE						
m-PHENYLENE DIAMINE						
ETHYL ALCOHOL						
PHENOLIC MICROSPHERES						
GLASS ECOSPHERES						
GLASS FIBERS						
BENTONE 27						
STA.SET= 31 CAT= IN MTA-2 (CURED)(29)	56.7	125.0	680.4	1500.0	.0	.0
EPICHLORHYDRIN/BGE	17.5	38.6	210.2	463.5		
LP-3, POLYSULFIDE LIQ POLYMER	17.5	38.6	210.2	463.5		
MDA & mPDA	7.0	15.4	83.7	184.5		
STANNOUS OCTOATE	.7	1.[illegible]	8.2	18.0		
PHENOLIC MICROSPHERES	14.0	3[illegible]	168.1	370.5		
STA.SET= 31 CAT= IN MTA-2 (UNMIXED)(30)	17.0	37.5	204.1	450.0	.0	.0
EPICHLORHYDRIN/BGE	5.3	11.6	63.3	139.5		
LP-3, POLYSULFIDE LIQ POLYMER	5.3	11.6	63.3	139.5		
MDA & mPDA	2.1	4.6	25.2	55.5		
STANNOUS OCTOATE	.2	[illegible]	2.7	6.0		
PHENOLIC MICROSPHERES	4.2		50.3	111.0		
METHYLENE CHLORIDE						
PERCHLOROETHYLENE						
STA.SET= 31 CAT= IN K5HA	9.1	20.0	[illegible]	240.0	.0	.0
BUTYL GLYCIDYL ETHER						
EPOXY RESINS						
STA.SET= 31 CAT= IN INSULATION AND PAPER					.0	.0

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 31 CAT= PA						
BOSTIK EPOXY PRIMER	15.3	33.8	193.7	405.0	.0	.0
EPOXY RESIN	2.0	4.4	23.8	52.5		
AMINE CURING AGENT	.3	.8	4.1	9.0		
TITANIUM DIOXIDE	.3	.8	4.1	9.0		
CHROMATE PIGMENTS	.7	1.5	8.2	18.0		
INERT PIGMENTS	2.2	4.8	25.9	57.0		
SUSPENSION & FLOW CONTROL ADDI	.1	.1	.7	1.5		
SOLVENTS	9.2	20.3	110.2	243.0		
STA.SET= 31 CAT= PA						
BOSTIK EPOXY TOPCOAT	21.0	46.3	251.7	555.0	.0	.0
EPICHLORHYDRIN/BISPHENOL A	5.1	11.3	61.2	135.0		
AMINE CURING AGENT	.8	1.8	9.5	21.0		
COLOR PIGMENT	4.3	9.4	51.0	112.5		
SUSPENSION & FLOW CONTROL ADDI	.3	.6	3.4	7.5		
SOLVENTS PHOTOCHEM REACTIVE	2.0	4.4	23.8	52.5		
SOLVENTS NONPHOTOCHEM REACTIVE	8.5	18.8	102.1	225.0		
STA.SET= 31 CAT= P						
RUSTOLEUM PRIMER	4.5	10.0	54.4	120.0	.0	.0
SILICATES	.7	1.6	8.8	19.5		
YELLOW IRON OXI.	.3	.8	4.1	9.0		
TITANIUM DIOXIDE	.1	.3	1.4	3.0		
CALCIUM BOROSILICATE	.9	1.9	10.2	22.5		
BENTONITE	<.1	.1	.3	.6		
LINSEED PHENOLIC ALKYL RESIN	.9	2.0	10.9	24.0		
ALIPHATIC HYDROCARBONS	1.5	3.3	17.7	39.0		
DRIERS AND ADDITIVES	.1	.3	1.4	3.0		
STA.SET= 31 CAT= PA						
RUSTOLEUM TOPCOAT	4.5	10.0	54.4	120.0	.0	.0
SILICATES	1.5	3.3	17.7	39.0		
TITANIUM DIOXIDE	.8	1.8	9.5	21.0		
BENTONITE CLAY	<.1	.1	.3	.6		
TINTING COLORS	.1	.3	1.4	3.0		
ALKYL RESIN	.8	1.8	9.5	21.0		
ALIPHATIC HYDROCARBONS	1.4	3.0	16.3	36.0		
DRIERS & ADDOTIVES	.1	.1	.7	1.5		
STA.SET= 31 CAT= PA						
GACOFLEX	22.1	48.8	265.4	585.0	.0	.0
TITANIUM DIOXIDE	1.5	3.4	18.4	40.5		
CLAY	1.8	3.9	21.1	46.5		
HYPALON	2.2	4.9	26.5	58.5		
HYDROCARBON RESIN	.5	1.0	5.4	12.0		
PERCHLOROETHYLENE	10.4	22.9	124.5	274.5		
1,1,1-TRICHLOROETHANE	5.6	12.3	66.7	147.0		

(CONT.)

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
EPOXIDIZED SOYBEAN OIL	.2	.5	2.7	6.0		
STA.SET= 31 CAT= PA PAINT-SPILL ABSORBANT	.0	.0	.0	.0		
STA.SET= 31 CAT= PW ALODINE CONTAMINATED WASTEWATR	189.4(18)	417.5(18)	2272.5(18)	5010.0(18)	.0	.0
CHROMIC ACID	3.3(31)	7.4(31)	40.1(31)	88.5(31)		
FERRICYANIDE SALT	1.9	4.1	22.5	49.5		
COMPLEX FLUORIDE SALT	.1	.1	.7	1.5		
STA.SET= 31 CAT= SO PERCHLOROETHYLENE	.8	1.8	9.5	21.0	.0	.0
STA.SET= 31 CAT= SO TRICHLOROETHANE	.6	1.4	7.5	16.5	.0	.0
STA.SET= 31 CAT= SO FREON 113	.7	1.6	8.8	19.5	.0	.0
STA.SET= 31 CAT= SO MSA-1 CONTAMINATED MECl	1881.8	4148.8	22582.0	49785.0	.0	.0
STA.SET= 31 CAT= SO MSA-1 CONTAM PERCHLOROETHYLENE	2315.0	5103.8	27780.1	61245.0	.0	.0
STA.SET= 31 CAT= SO PERCHLOROETHYLENE	347.0	765.0	4164.0	9180.0	.0	.0
STA.SET= 31 CAT= SO TRICHLOROETHANE	102.1	225.0	1224.7	2700.0	.0	.0
STA.SET= 31 CAT= SO METHYLENE CHLORIDE	319.8	705.0	3837.4	8460.0	.0	.0
STA.SET= 31 CAT= SO MTA-2 CONTAMINATED SOLVENTS	662.2(26)	1460.0(26)	7946.9(26)	17520.0(26)	.0	.0
STA.SET= 31 CAT= SO BOSTIK CONTAMINATED SOLVENTS	331.1(26)	730.0(26)	3973.4(26)	8760.0(26)	.0	.0
STA.SET= 31 CAT= SO RUSTOLEUM CONTAMINATED SOLVENT	331.1(26)	730.0(26)	3973.4(26)	8760.0(26)	.0	.0
SUBTOTAL FOR SET 31	12032.6	26527.5	144391.3	318330.0	.0	.0
STA.SET= 32 CAT= BA LITHIUM STORAGE BATTERIES	30.6	67.5	367.4	810.0	.0	.0

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994 PAGE 15

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 32 CAT= BA SILVER-ZINC STORAGE BATTERIES	51.0	112.5	612.3	1350.0	.0	.0
STA.SET= 32 CAT= BA POTASSIUM HYDROXIDE SOLUTION	10.9[18]	24.0[18]	130.6[18]	288.0[18]	.0	.0
STA.SET= 32 CAT= CB HYDRAZINE-CONTAMINATED WATER	136.1[18]	300.0[18]	1632.9[18]	3600.0[18]	.0	.0
STA.SET= 32 CAT= CS CONTAMINATED SEAWATER[32]	.0	.0	.0	.0		
STA.SET= 32 CAT= CS CONTAMINATED SEAWATER[32]	18143.6	40000.0	217723.2	480000.0	.0	.0
STA.SET= 32 CAT= CW SRB FWD SKT CLEANING WASTES					.0	.0
STA.SET= 32 CAT= EW WASTEWATER FROM EEW&S	757.0[4]	1669.0[4]	9084.5[4]	20028.0[4]		
STA.SET= 32 CAT= FO BILGE WASTES					.0	.0
STA.SET= 32 CAT= FO DIESEL FUEL & OIL SPILLS	.0	.0	.0	.0		
STA.SET= 32 CAT= FS WASTE FUEL & PRIMOL 355[11]	.0	.0	.0	.0		
HYDRAZINE	.0	.0	.0	.0		
STA.SET= 32 CAT= HS HYDRAZINE SCRUBBER EFFLUENT	226.8[18]	500.0[18]	2721.5[18]	6000.0[18]	.0	.0
HYDRAZINE	2.0	4.5	24.5	54.0		
STA.SET= 32 CAT= HY HYDRAZINE	51.3	113.1	615.7	1357.5	.0	.0
STA.SET= 32 CAT= IN INSULATION WASTES, SOLID[33] MSA-1 INSULATION MTA-2 INSULATION K5NA INSULATION PR-855 INSULATION	907.2[34]	2000.0[34]	10886.2[34]	24000.0[34]	.0	.0
STA.SET= 32 CAT= IN INSULATION CONTAM FILTERS	5.7[21]	12.5[21]	68.0[21]	150.0[21]	.0	.0
STA.SET= 32 CAT= IW INSULATION-CONTAMINATED WATER[33]	271614.4[18]	510625.0[18]	3270770.5[18]	6127500.0[18]		

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994 PAGE 16

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
MSA-1 INSULATION						
MTA-2 INSULATION						
K5NA INSULATION						
PR-855 INSULATION						
STA.SET= 32 CAT= PR						
PRESERVATIVE CHEMICALS					.0	.0
PROTECTIVE LUBRICANTS						
STA.SET= 32 CAT= PS						
SRB SOLID PROPELLANT	.0	.0	.0	.0	78.5[24]	173.0[24]
AMMONIUM PERCHLORATE	.0	.0	.0	.0		
ALUMINUM POWDER	.0	.0	.0	.0		
FERRIC OXIDE	.0	.0	.0	.0		
POLYMER & EPOXY RESIN	.0	.0	.0	.0		
STA.SET= 32 CAT= SB						
DETERGENT WASHWATER[35]	43544.6	96000.0	522535.6	1152000.0	.0	.0
STA.SET= 32 CAT= SB						
POTABLE RINSE WATER	150591.9	332000.0	1807102.5	3984000.0	.0	.0
STA.SET= 32 CAT= SB						
DEIONIZED RINSE WATER	70487.9	155400.0	845854.6	1864800.0	.0	.0
STA.SET= 32 CAT= SI						
SRB RINSE WATER	27215.4	60000.0	326584.8	720000.0	.0	.0
STA.SET= 32 CAT= SO						
SOLVENTS	13.3[26]	29.3[26]	159.2[26]	351.0[26]	.0	.0
FREON TMC/TM						
SOLVENTS, UNSPECIFIED						
SUBTOTAL FOR SET 32	543787.8	1198853.0	6525452.0	14386236.0	.0	.0
STA.SET= 33 CAT= CA						
AIR FILTERS	5.7[21]	12.5[21]	68.0[21]	150.0[21]	.0	.0
STA.SET= 33 CAT= EW						
WASTEWATER FROM EEW&S	236.4	521.3	2837.2	6255.0		
STA.SET= 33 CAT= HF						
HYDRAULIC FLUIDS					.0	.0
SUBTOTAL FOR SET 33	242.1	533.8	2905.2	6405.0	.0	.0

TABLE 12 (CONT.) HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 99 CAT= AW						
GX-6300 ABLATOR ADHESIVE	7.4	16.3	88.5	195.0	.0	.0
RESIN STM L 663	.7	1.6	8.8	19.5		
RESIN STM L 664	2.7	6.0	32.7	72.0		
SILICA POWDER	.2	.5	2.7	6.0		
CARBON POWDER	.2	.5	2.7	6.0		
CURING AGENT L 663	.3	.6	3.4	7.5		
CURING AGENT L 664	.1	.1	.7	1.5		
HEPTANE	2.9	6.5	35.4	78.0		
XYLENE	.2	.4	2.0	4.5		
STA.SET= 99 CAT= AW						
ISOCHEM POLYESTER RESIN ADHESV	7.4	16.3	88.5	195.0	.0	.0
STYRENE						
MEK PEROXIDE CATALYST						
DIMETHYL PHTHALATE						
STA.SET= 99 CAT= CA						
FILTER					.0	.0
STA.SET= 99 CAT= CN						
SOLVENT CONTAMINATED CONTAINER	2.8(28)	6.3(28)	34.0(28)	75.0(28)	.0	.0
SOLVENTS(36)						
STA.SET= 99 CAT= CN						
PRIMER CONTAMINATED CONTAINERS	.4(28)	.9(28)	4.8(28)	10.5(28)	.0	.0
STA.SET= 99 CAT= CN						
ADHESIVE CONTAMINATED CONTAINERS	.4(28)	.9(28)	4.8(28)	10.5(28)	.0	.0
STA.SET= 99 CAT= CN						
SOLVENT CONTAINERS					.0	.0
STA.SET= 99 CAT= CN						
POUR FOAM CONTAINERS	28.3(28)	62.5(28)	340.2(28)	750.0(28)	.0	.0
STA.SET= 99 CAT= CN						
ABLATOR CONTAMINATED CONTAINER	.4(28)	.9(28)	4.8(28)	10.5(28)	.0	.0
STA.SET= 99 CAT= CR						
SOLVENT CONTAMINATED RAGS	5.7(9)	12.5(9)	68.0(9)	150.0(9)	.0	.0
STA.SET= 99 CAT= CR						
ADHESIVE CONTAMINATED RAGS	5.7(9)	12.5(9)	68.0(9)	150.0(9)	.0	.0
STA.SET= 99 CAT= CR						
EPOXY PRIMER-CONTAMINATED RAGS	2.8(9)	6.3(9)	34.0(9)	75.0(9)	.0	.0
STA.SET= 99 CAT= IN						
BX-250 FOAM (SOFI)	147.4	325.0	1769.0	3900.0	.0	.0

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
DIPHENYL METHANE DIISOCYANATE	36.9	81.3	442.3	975.0		
FREON 11	23.8	52.5	285.8	630.0		
AMINES	13.0	28.8	156.5	345.0		
POLYOLS						
SUPER MEK PEROXIDE						
POLYESTER RESIN						
DIMETHYL PHTHALATE						
STA.SET= 99 CAT= IN						
POUR FOAM (MIXED)[29]	155.9[37]	343.8[37]	1871.1[37]	4125.0[37]	.0	.0
POLYURETHANE						
STA.SET= 99 CAT= IN						
POUR FOAM PART A (UNMIXED)[30]	7.9	17.5	95.3	210.0	.0	.0
DIPHENYL METHANE DIISOCYANATE	4.0	8.8	47.6	105.0		
FREON 11	2.6	5.6	30.6	67.5		
POLYOLS, AMINES	1.4	3.1	17.0	37.5		
STA.SET= 99 CAT= IN						
POUR FOAM PART B (UNMIXED)[30]	7.9	17.5	95.3	210.0	.0	.0
FREON 11	1.6	3.5	19.1	42.0		
AMINE CATALYST	.2	.4	2.0	4.5		
POLYETHER POLYOL BLEND	6.2	13.6	74.2	163.5		
STA.SET= 99 CAT= IN						
POUR FOAM CONTAMINATED PAPER	1.9[28]	4.1[28]	22.5[28]	49.5[28]	.0	.0
STA.SET= 99 CAT= IN						
SUPER LIGHT ABLATOR (I)	5.7	12.5	68.0	150.0	.0	.0
RESIN L664, PT A	3.3	7.4	40.1	88.5		
SILICA FIBERS	.3	.8	4.1	9.0		
CORK	.7	1.5	8.2	18.0		
PHENOLIC MICROSPHERES	.2	.4	2.0	4.5		
SILICA MICROSPHERES	.8	1.8	9.5	21.0		
CURING AGENT	.3	.8	4.1	9.0		
STA.SET= 99 CAT= IN						
SUPER LIGHT ABLATOR (II)	5.7	12.5	68.0	150.0	.0	.0
RESIN STM L664, PT A	1.7	3.8	20.4	45.0		
CARBON POWDER						
SILICA FIBERS						
CORK						
SILICA MICROSPHERES						
PHENOLIC MICROSPHERES						
CURING AGENT STM L664, PT B	1.0	2.1	11.6	25.5		
STA.SET= 99 CAT= IN						
POUR FOAM "TRIMMINGS"	5.7	12.5	68.0	150.0	.0	.0
POLYURETHANE						

TABLE 12 (CONT.)

HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994

WASTE MATERIAL	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
STA.SET= 99 CAT= PA	.1(27)	.1(27)	.7(27)	1.5(27)	.0	.0
EPOXY PRIMER						
METHYLENE ISOBUTYL KETONE						
XYLENE						
CYCLOHEXANONE						
CHROMATES						
INORGANIC PIGMENTS						
N-BUTANOL						
TOLUENE						
AMINO SILANE						
METHYL ETHYL KETONE						
STA.SET= 99 CAT= PA	.1(27)	.1(27)	.7(27)	1.5(27)	.0	.0
D.C. 1200						
VM AND P NAPTHA						
ORGANOMETALLIC SALTS						
STA.SET= 99 CAT= SO	.2(27)	.4(27)	2.0(27)	4.5(27)	.0	.0
FREON TMC						
STA.SET= 99 CAT= SO	.2(27)	.4(27)	2.0(27)	4.5(27)	.0	.0
1,1,1-TRICHLOROETHANE						
STA.SET= 99 CAT= SO	15.3	33.6	183.0	403.5	.0	.0
MEK & CELLOSOLVE						
STA.SET= 99 CAT= SO	93.8	206.9	1126.0	2482.5	.0	.0
HEPTANE						
STA.SET= 99 CAT= SO	133.8	295.0	1605.7	3540.0	.0	.0
CELLOSOLVE ACETATE						
STA.SET= 99 CAT= SO	110.5	243.6	1326.1	2923.5	.0	.0
METHYL ETHYL KETONE						
STA.SET= 99 CAT= SR	.7	1.5	8.2	18.0	.0	.0
SOLVENT REDUCER						
METHYL ETHYL KETONE	.5	1.0	5.4	12.0		
CYCLOHEXANONE	.2	.5	2.7	6.0		
STA.SET= 99 CAT= SW	101.3	223.3	1215.2	2679.0	.0	.0
SOLVENT CONTAMINATED WATER						
SUBTOTAL FOR SET 99	855.2	1885.4	10262.2	22624.5	.0	.0
TOTAL FOR ALL SETS	1299965.5	2865948.5	15599588.0	34391384.0	139353.5	307223.5

TABLE 12 (CONT.)
SUMMARY BY CATEGORY

HAZARDOUS WASTE GENERATION FOR EACH YEAR 1988-1994

CATEGORY	BASELINE MONTHLY KILOGRAMS	BASELINE MONTHLY POUNDS	BASELINE YEARLY KILOGRAMS	BASELINE YEARLY POUNDS	CONTINGENCY PER YEAR KILOGRAMS	CONTINGENCY PER YEAR POUNDS
SO	10326.8	22766.9	123921.9	273202.5	.0	.0
EW	16891.4	37239.3	202696.2	446871.0	.0	.0
FO	47.6	105.0	571.5	1260.0	.0	.0
FS	5071.7	11181.3	60860.4	134175.0	.0	.0
OS	1540.7	3396.8	18488.8	40761.0	.0	.0
HF	503.2	1109.4	6038.4	13312.5	.0	.0
AW	36.0	79.4	432.0	952.5	.0	.0
CN	3500.9	7718.1	42010.4	92617.5	.0	.0
CR	48.2	106.3	578.3	*275.0	.0	.0
HS	4848.9	10690.0	58186.5	128280.0	.0	.0
HY	533.4	1176.0	6401.1	14112.0	44930.6	99055.5
IH	1474.5	3250.8	17694.1	39009.0	.0	.0
MH	584.6	1288.8	7014.8	15465.0	6464.6	14252.0
NH	45.4	100.0	544.3	1200.0	47.2	104.0
NO	546.0	1203.6	6551.4	14443.5	65050.2	143412.0
PA	102.6	226.3	1231.5	2715.0	.0	.0
SW	1910.5	4211.9	22925.6	50542.5	.0	.0
WP	5.7	12.5	68.0	150.0	.0	.0
PS	.0	.0	.0	.0	504379.8	1111973.0
QW	709868.3	1565000.0	8519420.0	18780000.0	.0	.0
AL	.0	.0	.0	.0	.0	.0
CA	62.4	137.5	748.4	1650.0	.0	.0
PW	189.4	417.5	2272.5	5010.0	.0	.0
BA	92.5	204.0	1110.4	2448.0	.0	.0
CB	136.1	300.0	1632.9	3600.0	.0	.0
CS	18143.6	40000.0	217723.2	480000.0	.0	.0
CW	.0	.0	.0	.0	.0	.0
IW	231614.4	510625.0	2779372.5	6127500.0	.0	.0
PR	.0	.0	.0	.0	.0	.0
SB	264624.4	583400.0	3175492.5	7000800.0	.0	.0
SI	27215.4	60000.0	326584.8	720000.0	.0	.0
SR	.7	1.5	8.2	18.0	.0	.0

* For footnotes, see Table 8.

TABLE 13. HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT *

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
STA.SET= 0[2] CAT= SO						
CONTAMINATED FREON	2475.8[3]	5458.3[3]	297101.4[3]	655000.0[3]	.0	.0
SUBTOTAL FOR SET 0	2475.8	5458.3	297101.4	655000.0	.0	.0
STA.SET= 17 CAT= EW						
WASTEWATER FROM EEW&S	2838.9[4]	6258.8[4]	340668.8[4]	751050.0[4]		
STA.SET= 17 CAT= FO						
DIESEL FUEL					.0	.0
STA.SET= 17 CAT= FO						
DIESEL FUEL & OIL					.0	.0
STA.SET= 17 CAT= FS						
CONTAMINATED DILUTION WATER	.0	.0	.0	.0		
MMH	.0	.0	.0	.0		
STA.SET= 17 CAT= OS						
CONTAMINATED DILUTION WATER	.0	.0	.0	.0		
N204	.0	.0	.0	.0		
SUBTOTAL FOR SET 17	2838.9	6258.8	340668.8	751050.0	.0	.0
STA.SET= 18 CAT= HF						
HYDRAULIC FLUIDS	4.5[5]	9.9[5]	538.6[5]	1187.5[5]	.0	.0
SUBTOTAL FOR SET 18	4.5	9.9	538.6	1187.5	.0	.0
STA.SET= 19 CAT= AW						
TPS ADHESIVE, RTV 566/577	1.2	2.6	141.7	312.5	.0	.0
PHENYL METHYL POLYSILOXANE						
TIN OXIDE						
IRON OXIDE						
SILICON						
HARDENER						

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
EPOXY						
ZINC CHROMATE						
ASBESTOS						
MERCAPTAN						
DIMETHYLAMINE						
STA.SET= 19 CAT= AW						
EA 934 EPOXY					.0	.0
EPOXY RESIN						
ASBESTOS						
STA.SET= 19 CAT= AW						
EA 9309 EPOXY					.0	.0
EPOXY RESIN						
GLASS FIBERS						
ACRYLONITRILE/BUTADIEN/STYRENE						
ASBESTOS						
POLYGLYCOL DIAMINE						
SILANE						
STA.SET= 19 CAT= CN						
SPRAYCANS OF TPS SEALER					.0	.0
FLUORINATED SOLVENT						
FREON 113						
STA.SET= 19 CAT= CN						
KOROPON PRIMER CONTAM CANS	7.1(6)	15.6(6)	850.5(6)	1875.0(6)	.0	.0
BUTYL ACETATE						
METHYL ETHYL KETONE						
TOLUENE						
TALC - Mg SILICATES						
EPOXY RESIN						
STA.SET= 19 CAT= CN						
LACQUER SPRAY CANS	2.8(7)	6.3(7)	340.2(7)	750.0(7)	.0	.0
PIGMENT SOLIDS						
VEHICLE SOLIDS						
TOLUENE						
XYLENE						
HYDROCARBON PROPELLANT						
PETROLEUM DISTILLATES						
STA.SET= 19 CAT= CN						
ISP CONTAM CUPS & WOOD STICKS	.7(8)	1.6(8)	85.0(8)	187.5(8)	.0	.0
INSTANT SET POLYMER						
STA.SET= 19 CAT= CN						
MARSHALL STENCIL INK SPRAYCANS	.3(7)	.6(7)	34.0(7)	75.0(7)	.0	.0
XYLENE						
(CONT.)						

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
NAPTHA						
OTHER MATERIALS						
STA.SET= 19 CAT= CH						
LACQUER SPRAYCANS	2.3(7)	5.0(7)	272.2(7)	600.0(7)	.0	.0
PIGMENT SOLIDS						
VEHICLE SOLIDS						
TOLUENE						
XYLENE						
HYDROCARBON PROPELLANT						
PETROLEUM DISTILLATES						
STA.SET= 19 CAT= CH						
ENAMEL SPRAYCANS	4.3(7)	9.4(7)	510.3(7)	1125.0(7)	.0	.0
STA.SET= 19 CAT= CH						
ZINC CHROMATE PRIMER CANS	4.3(7)	9.4(7)	510.3(7)	1125.0(7)	.0	.0
STA.SET= 19 CAT= CH					.0	.0
CONTAMINATED TARE CUPS						
EA 911 EPOXY						
EA 934 EPOXY						
EA 9309 EPOXY						
STA.SET= 19 CAT= CR						
RAGS WITH SOLVENTS, GREASES	4.7(9)	10.4(9)	567.0(9)	1250.0(9)	.0	.0
STA.SET= 19 CAT= CR					.0	.0
SOLVENT-CONTAM CHEESECLOTH						
ISOPROPYL ALCOHOL						
METHYL ETHYL KETONE						
1,1,1-TRICHLOROETHANE						
STA.SET= 19 CAT= CR					.0	.0
MEK & IPA CONTAM CHEESECLOTH						
METHYL ETHYL KETONE						
ISOPROPYL ALCOHOL						
STA.SET= 19 CAT= CR					.0	.0
IPA CONTAMINATED CHEESECLOTH						
ISOPROPYL ALCOHOL						
STA.SET= 19 CAT= CR					.0	.0
TCE CONTAMINATED CHEESECLOTH						
1,1,1-TRICHLOROETHANE						
STA.SET= 19 CAT= CR					.0	.0
MEK CONTAMINATED CHEESECLOTH						
METHYL ETHYL KETONE						

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT PAGE 4

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR SOLID FILM LUBRIC CONT CHSCLTH					.0	.0
STA.SET= 19 CAT= CR IPA CONTAMINATED CHEESECLOTH ISOPROPYL ALCOHOL					.0	.0
STA.SET= 19 CAT= CR DICHLOROMETHANE CONT CHSECLTH					.0	.0
STA.SET= 19 CAT= CR CONTAM CLOTHES, CLOTH & DEBRIS KOROPON BASE PRIMER KOROPON ACTIVATOR BERYLLIUM DUST	4.7 (10)	10.4 (10)	567.0 (10)	1250.0 (10)	.0	.0
STA.SET= 19 CAT= EW WASTEWATER FROM EEW&S	3154.3 (4)	6954.2 (4)	378520.8 (4)	834500.0 (4)		
STA.SET= 19 CAT= FS WASTEWATER FROM PAYLOAD/ORB MMH	567.0 56.7	1250.0 125.0	68038.5 6803.8	150000.0 15000.0	.0	.0
STA.SET= 19 CAT= FS WASTE FUEL AND PRIMOL 355 (11) HYDRAZINE & MMH	37.8 1.9	83.3 4.2	4535.9 226.8	10000.0 500.0		
STA.SET= 19 CAT= HF VACUUM PUMP OIL TEXACO REGAL OIL 068	4.7	10.4	567.0	1250.0	.0	.0
STA.SET= 19 CAT= HS FUEL SCRUBBER HYDRAZINE & MMH	2645.9 52.9	5833.3 116.7	317513.0 6350.3	700000.0 14000.0	.0	.0
STA.SET= 19 CAT= HY HYDRAZINE	.0	.0	.0	.0	24947.4 (12)	55000.0 (12)
STA.SET= 19 CAT= HY HYDRAZINE	70.9	156.3	8504.8	18750.0	340.2 (12)	750.0 (12)
STA.SET= 19 CAT= IN POLYURETHANE FOAM	4.7	10.4	567.0	1250.0	.0	.0

TABLE 13 (CONT.)

HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
STA.SET= 19 CAT= IN ALUMACAST A/B MIXTURE POLYOXPROPLENE PENTAERYTHRITOL AROMATIC WHITE OIL INERT ALUMINIZED PARTICLES DIPHENYLMETHANE DIISOCYANATE POLYMERS OF DPM DIISOCYANATE	.1	.3	17.0	37.5	.0	.0
STA.SET= 19 CAT= IN INSTANT SET POLYMER SCRAPS DIPHENYL METHANE DIISOCYANATE POLY(OXALKYLENE)POLYETHER AROMATIC HYDROCARBONS	1.9 (13)	4.2 (13)	226.8 (13)	500.0 (13)	.0	.0
STA.SET= 19 CAT= IN SILANE/ACETIC ACID RESIDUE METHYL TRIMETHOXYSILANE ACETIC ACID	.5	1.0	56.7	125.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE	36.9	81.3	4422.5	9750.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE	9.4	20.8	1134.0	2500.0	.0	.0
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE (14)	19.6 (15)	43.1 (15)	2347.3 (15)	5175.0 (15)	1072.7 (12)	2365.0 (12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE (14)	19.6 (15)	43.1 (15)	2347.3 (15)	5175.0 (15)	1483.2 (12)	3270.0 (12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE (14)	13.9 (15)	30.6 (15)	1666.9 (15)	3675.0 (15)	1828.0 (12)	4030.0 (12)
STA.SET= 19 CAT= MH MONOMETHYL HYDRAZINE (14)	43.4 (15)	95.6 (15)	5204.9 (15)	11475.0 (15)	.0	.0
STA.SET= 19 CAT= NH WASTEWATER WITH AMMONIA	37.8 (15)	83.3 (15)	4535.9 (15)	10000.0 (15)	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	5.7	12.5	680.4	1500.0	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	10.2	22.5	1224.7	2700.0	.0	.0
STA.SET= 19 CAT= NO NITROGEN TETROXIDE	35.7 (15)	78.8 (15)	4286.4 (15)	9450.0 (15)	1630.7 (12)	3595.0 (12)

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	BASELINE MONTHLY (AVERAGE) POUNDS	BASELINE FOR PROJECT KILOGRAMS	BASELINE FOR PROJECT POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	CONTINGENCY FOR PROJECT POUNDS
STA.SET= 19 CAT= NO						
NITROGEN TETROXIDE	35.7 (15)	78.8 (15)	4286.4 (15)	9450.0 (15)	2329.2 (12)	5135.0 (12)
STA.SET= 19 CAT= NO						
NITROGEN TETROXIDE	24.9 (15)	54.8 (15)	2982.4 (15)	6575.0 (15)	2862.2 (12)	6310.0 (12)
STA.SET= 19 CAT= NO						
NITROGEN TETROXIDE	82.8 (15)	182.5 (15)	9933.6 (15)	21900.0 (15)	.0	.0
STA.SET= 19 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	40823.1 (12)	90000.0 (12)
STA.SET= 19 CAT= OS						
DECONTAMINATE FROM PAYLOAD/ORB	302.4	666.7	36287.2	80000.0	.0	.0
N204	2.8	6.3	340.2	750.0		
STA.SET= 19 CAT= OS						
WASTE OXIDIZER AND PRIMOL 355 (11)	38.7	85.4	4649.3	10250.0	.0	.0
N204	2.8	6.3	340.2	750.0		
STA.SET= 19 CAT= PA						
KOROPON PRMER CONT PNT BRUSHES	18.9 (16)	41.7 (16)	2267.9 (16)	5000.0 (16)	.0	.0
BUTYL ACETATE						
TALC - Mg SILICATES						
EPOXY RESIN						
STA.SET= 19 CAT= PA						
LACQUER #626486	.6 (17)	1.4 (17)	73.7 (17)	162.5 (17)	.0	.0
STA.SET= 19 CAT= PA						
CONTAMINATED BRUSHES	1.9 (16)	4.2 (16)	226.8 (16)	500.0 (16)	.0	.0
ORGANIC ZINC PRIMER						
ZINC CHROMATE PRIMER						
STA.SET= 19 CAT= PA						
ORGANIC ZINC PRIMER	5.9 (18)	13.0 (18)	708.7 (18)	1562.5 (18)	.0	.0
ZINC DUST						
BARYTES						
MOLYBDATE ORANGE						
SILICA						
HIGH MOLECULAR WEIGHT EPOXY						
CELLOSOLVE ACETATE						
TOLUENE						
METHYL ETHYL KETONE						
STA.SET= 19 CAT= PA						
CONTAMINATED PAINT BRUSHES	1.9 (16)	4.2 (16)	226.8 (16)	500.0 (16)	.0	.0
EA 911 EPOXY						
(CONT.)						

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
EA 934 EPOXY						
EA 9309 EPOXY						
STA.SET= 19 CAT= SO						
DOPE & LACQUER THINNER	.9	1.9	102.1	225.0	.0	.0
ALIPHATIC NAPTHA	.:	.3	17.0	37.5		
ESTER OR KETONE	.4	.8	45.4	100.0		
ISO- OR n-BUTYL ACETATE	.2	.5	28.3	62.5		
ISO- OR n-BUTYL ALCOHOL	.1	.2	11.3	25.0		
STA.SET= 19 CAT= SW						
WASHWATER WITH MEK	44.2	97.4	5301.3	11687.5	.0	.0
METHYL ETHYL KETONE	6.4	14.1	765.4	1687.5		
SUBTOTAL FOR SET 19	7311.0	16118.1	877322.4	1934175.0	77316.7	170455.0
STA.SET= 21 T= EW						
WASTEWATER FR EEW&S	2838.9 (4)	6258.8 (4)	340668.8 (4)	751050.0 (4)		
STA.SET= 21 CAT= FS						
WASTEWATER WITH MMH	112.5	247.9	13494.3	29750.0	.0	.0
MMH	10.4	22.9	1247.4	2750.0		
STA.SET= 21 CAT= HS						
FUEL SCRUBBER	378.0	833.3	45359.0	100000.0	.0	.0
MMH	6.9	15.2	827.8	1825.0		
STA.SET= 21 CAT= IN						
TILE REPAIR FOAM	4.7	10.4	567.0	1250.0	.0	.0
POLYURETHANE	4.7	10.4	567.0	1250.0		
STA.SET= 21 CAT= MH						
MONOMETHYL HYDRAZINE	.0	.0	.0	.0		
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	2041154.8 (19)	4500000.0 (19)
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	15.6	34.4	1871.1	4125.0	.0	.0
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	53.4	117.7	6407.0	14125.0	.0	.0
STA.SET= 21 CAT= NO						
NITROGEN TETROXIDE	.0	.0	.0	.0	48987.7 (20)	108000.0 (20)
STA.SET= 21 CAT= OS						
WASTEWATER WITH OXIDIZER	75.8	167.1	9094.5	20050.0	.0	.0

(CONT.)

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	BASELINE MONTHLY (AVERAGE) POUNDS	BASELINE FOR PROJECT KILOGRAMS	BASELINE FOR PROJECT POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	CONTINGENCY FOR PROJECT POUNDS
N2O4	.6	1.3	68.0	150.0		
STA.SET= 21 CAT= SW						
WASTEWATER WITH MEK	44.1	97.3	5295.7	11675.0	.0	.0
METHYL ETHYL KETONE	6.3	14.0	759.8	1675.0		
STA.SET= 21 CAT= WP						
WASTE SEALS, FILTERS, ETC.	4.7 (21)	10.4 (21)	567.0 (21)	1250.0 (21)	.0	.0
SUBTOTAL FOR SET 21	3527.7	7777.3	423324.2	933275.0	2090142.5	4608000.0
STA.SET= 23 CAT= EW						
WASTEWATER FROM EEW&S	3154.3	6954.2	378520.8	834500.0		
STA.SET= 23 CAT= FS						
HYDRAZINE-CONTAM. WASTEWATER	591.6	1304.2	70986.8	156500.0		
HYDRAZINE	29.3	64.6	3515.3	7750.0		
STA.SET= 23 CAT= FS						
HYDRAZINE-CONTAM. CLNUP WATER	197.0	434.4	23643.4	52125.0		
HYDRAZINE	2.2	4.8	260.8	575.0		
STA.SET= 23 CAT= FS						
WASTEWATER FROM PPR	2365.8	5215.6	283890.6	625875.0		
HYDRAZINE						
STA.SET= 23 CAT= FS						
PRIMOL 355 (11)	354.8	782.3	42580.8	93875.0		
HYDRAZINE						
MMH						
STA.SET= 23 CAT= HF						
HYDRAULIC FLUIDS	410.1	904.2	49214.5	108500.0	.0	.0
TETRAORTHOCRESOL PHOSPHATE	410.1	904.2	49214.5	108500.0		
STA.SET= 23 CAT= HS						
HYDRAZINE & MMH SCRUBBER	788.6 (18)	1738.5 (18)	94630.2 (18)	208625.0 (18)	.0	.0
HYDRAZINE	17.5	38.5	2097.9	4625.0		
MMH	13.7	30.2	1644.3	3625.0		
STA.SET= 23 CAT= HY						
HYDRAZINE	216.9	478.1	26024.7	57375.0	.0	.0
STA.SET= 23 CAT= HY						
LBM PROPELLANT	.0	.0	.0	.0	396891.3 (22)	875000.0 (22)
PARAHYDRAZINE	.0	.0	.0	.0		
(CONT.)						

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
UNSYM DIMETHYLHYDRAZINE	.0	.0	.0	.0		
STA.SET= 23 CAT= HY HYDRAZINE	.0	.0	.0	.0	27126.9 (22)	59805.0 (22)
STA.SET= 23 CAT= IN K5NA INSULATION BUTYL GLYCIDYL ETHER EPOXY RESINS, UNCURED	10.9	24.0	1304.1	2875.0	.0	.0
STA.SET= 23 CAT= MH MONOMETHYL HYDRAZINE	344.4	759.4	41333.4	91125.0	.0	.0
STA.SET= 23 CAT= MH MONOMETHYL HYDRAZINE	.0	.0	.0	.0	60261.7 (22)	132855.0 (22)
STA.SET= 23 CAT= NH AMMONIA	.0	.0	.0	.0	471.7 (22)	1040.0 (22)
STA.SET= 23 CAT= NO NITROGEN TETROXIDE	191.0	421.1	22923.3	50537.5	.0	.0
STA.SET= 23 CAT= NO LBM OXIDIZER NITROGEN TETROXIDE	.0 .0	.0 .0	.0 .0	.0 .0	396891.3 (22)	875000.0 (22)
STA.SET= 23 CAT= NO NITROGEN TETROXIDE	.0	.0	.0	.0	140649.2 (22)	310080.0 (22)
STA.SET= 23 CAT= OS N204 CONTAM. CLEANUP WATER NITROGEN TETROXIDE	118.1 1.2	260.4 2.6	14174.7 141.7	31250.0 312.5	.0	.0
STA.SET= 23 CAT= OS N204 CONTAM. WASTEWATER NITROGEN TETROXIDE	394.1 29.3	868.8 64.6	47286.8 3515.3	104250.0 7750.0	.0	.0
STA.SET= 23 CAT= OS PRIMOL 355(11) N204	354.8	782.3	42680.8	93875.0	.0	.0
STA.SET= 23 CAT= PS SRB PROPELLANT SPILL(23) AMMONIUM PERCHLORATE ALUMINUM POWDER PBAN BINDER HTPB BINDER IRON OXIDE	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	.0 .0 .0 .0 .0 .0	5043013.0 (24)	11118000.0 (24)
STA.SET= 23 CAT= PH						

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
ALUMINUM OXIDE	3.5	7.7	419.6	925.0		
AMMONIA	.2	.5	28.3	62.5		
HYDROCHLORIC ACID	377.5	832.3	45302.3	99875.0		
ORGANIC CARBON	3.5	7.8	425.2	937.5		
STA.SET= 23 CAT= SO						
SOLVENT MIXTURE	363.6 (25)	669.4 (25)	36434.6 (25)	80325.0 (25)	.0	.0
FREON TMC/MF/TF						
SYM. TETRACHLOROETHANE						
STA.SET= 23 CAT= SO						
CONTAMINATED SOLVENTS	275.9 (26)	608.3 (26)	33112.1 (26)	73000.0 (26)	.0	.0
STA.SET= 23 CAT= SW						
SOLVENT WASTEWATER UNSPEC.	433.7 (18)(25)	956.3 (18)(25)	52049.5 (18)(25)	114750.0 (18)(25)	.0	.0
STA.SET= 23 CAT= SW						
CONTAMINATED WASTEWATER	985.6 (18)	2172.9 (18)	118273.6 (18)	260750.0 (18)	.0	.0
SOLVENTS						
CHLORINATED RUBBER						
ZINC PRIMER						
SUBTOTAL FOR SET 23	603048.3	1329500.8	72365792.0	159540096.0	1022292.0	2253780.0
STA.SET= 31 CAT= AL						
SURFACTANT					.0	.0
NaOH						
SODIUM TRIPOLYPHOSPHATE						
STA.SET= 31 CAT= AW						
EA 934 EPOXY ADHESIVE	16.5 (26)(27)	36.5 (26)(27)	1984.5 (26)(27)	4375.0 (26)(27)	.0	.0
EPOXY RESIN	7.1	15.6	850.5	1875.0		
ASBESTOS	1.9	4.2	226.8	500.0		
FILLERS	3.3	7.3	396.9	875.0		
POLYAMIDE	3.8	8.3	453.6	1000.0		
DIETHYLENETRIAMINE	.5	1.0	56.7	125.0		
STA.SET= 31 CAT= CA						
CONTAMINATED AIR FILTERS	23.6	52.1	2834.9	6250.0	.0	.0
STA.SET= 31 CAT= CA						
CHARCOAL FILTER WASTES					.0	.0
STA.SET= 31 CAT= CA						
CONTAMINATED AIR FILTERS	23.6	52.1	2834.9	6250.0	.0	.0
STA.SET= 31 CAT= CN						
BOSTIK PRIMER PAINT CANS	7.1 (6)	15.6 (6)	850.5 (6)	1875.0 (6)	.0	.0

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
STA.SET= 31 CAT= CN BOSTIK TOPCOAT PAINT CANS	21.3 (6)	46.9 (6)	2551.4 (6)	5625.0 (6)	.0	.0
STA.SET= 31 CAT= CN RUSTOLEUM PRIMER PAINT CANS	.9 (6)	2.1 (6)	113.4 (6)	250.0 (6)	.0	.0
STA.SET= 31 CAT= CN RUSTOLEUM TOPCOAT PAINT CANS	.9 (6)	2.1 (6)	113.4 (6)	250.0 (6)	.0	.0
STA.SET= 31 CAT= CN MSA-1 EMPTY CONTAINERS	472.5 (28)	1041.7 (28)	56698.8 (28)	125000.0 (28)	.0	.0
STA.SET= 31 CAT= CN K5NA CONTAINERS	3.5	7.8	425.2	937.5	.0	.0
STA.SET= 31 CAT= CN K5NA & MTA-2 PACKING MATERIALS	2362.4 (28)	5208.3 (28)	283493.8 (28)	625000.0 (28)	.0	.0
STA.SET= 31 CAT= CR SOLVENT CONTAMINATED RAGS	4.7 (9)	10.4 (9)	567.0 (9)	1250.0 (9)	.0	.0
STA.SET= 31 CAT= CR ALODINE CONTAMINATED RAGS	2.4 (9)	5.2 (9)	283.5 (9)	625.0 (9)	.0	.0
STA.SET= 31 CAT= CR RYMPLE CLOTHS	4.7 (9)	10.4 (9)	567.0 (9)	1250.0 (9)	.0	.0
STA.SET= 31 CAT= CR PAINT DROP CLOTHS	7.1 (9)	15.6 (9)	850.5 (9)	1875.0 (9)	.0	.0
STA.SET= 31 CAT= EW WASTEWATER FROM EEW&S	1261.7 (4)	2781.7 (4)	151408.3 (4)	333800.0 (4)		
STA.SET= 31 CAT= FO FUEL AND OIL SPILLS	.0	.0	.0	.0		
STA.SET= 31 CAT= FO FUEL & OIL WASTES	39.7	87.5	4762.7	10500.0	.0	.0
STA.SET= 31 CAT= FS PRIMOL 355 (11)	.0	.0	.0	.0		
STA.SET= 31 CAT= HS SCRUBBER EFFLUENT	39.2 (18)	86.5 (18)	4706.0 (18)	10375.0 (18)	.0	.0
STA.SET= 31 CAT= HY HYDRAZINE	114.0	251.4	13681.4	30162.5	.0	.0
STA.SET= 31 CAT= IN MSA-1 (CURED) (29) (CONT.)	94.5 (25)	208.3 (25)	11339.8 (25)	25000.0 (25)	.0	.0

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
EPICHLORHYDRIN/BGE	37.8	83.4	4541.6	10012.5		
GLASS ECOSPHERES	11.2	24.6	1338.1	2950.0		
PHENOLIC MICROSPHERES	33.5	73.9	4019.9	8862.5		
GLASS FIBERS	4.2	9.2	498.9	1100.0		
BENTONE 27	3.2	7.0	379.9	837.5		
METHYLENE DIANILINE	3.3	7.3	396.9	875.0		
m-PHENYLENE DIAMINE	1.4	3.0	164.4	362.5		
STA.SET= 31 CAT= IN (30) MSA-1, PART A (UNMIXED)					.0	.0
METHYLENE CHLORIDE						
EPICHLORHYDRIN/BGE						
STA.SET= 31 CAT= IN (30) MSA-1, PART B (UNMIXED)					.0	.0
METHYLENE CHLORIDE						
PERCHLOROETHYLENE						
METHYLENE DIANILINE						
m-PHENYLENE DIAMINE						
ETHYL ALCOHOL						
PHENOLIC MICROSPHERES						
GLASS ECOSPHERES						
GLASS FIBERS						
BENTONE 27						
STA.SET= 31 CAT= IN MTA-2 (CURED)(29)	47.2	104.2	5669.9	12500.0	.0	.0
EPICHLORHYDRIN/BGE	14.6	32.2	1752.0	3862.5		
LP-3, POLYSULFIDE LIQ POLYMER	14.6	32.2	1752.0	3862.5		
MDA & mPDA	5.8	12.8	697.4	1537.5		
STANNOUS OCTOATE	.6	1.3	68.0	150.0		
PHENOLIC MICROSPHERES	11.7	25.7	1400.5	3087.5		
STA.SET= 31 CAT= IN MTA-2 (UNMIXED)(30)	14.2	31.3	1701.0	3750.0	.0	.0
EPICHLORHYDRIN/BGE	4.4	9.7	527.3	1162.5		
LP-3, POLYSULFIDE LIQ POLYMER	4.4	9.7	527.3	1162.5		
MDA & mPDA	1.7	3.9	209.8	462.5		
STANNOUS OCTOATE	.2	.4	22.7	50.0		
PHENOLIC MICROSPHERES	3.5	7.7	419.6	925.0		
METHYLENE CHLORIDE						
PERCHLOROETHYLENE						
STA.SET= 31 CAT= IN K5NA	7.6	16.7	907.2	2000.0	.0	.0
BUTYL GLYCIDYL ETHER						
EPOXY RESINS						
STA.SET= 31 CAT= IN INSULATION AND PAPER					.0	.0

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT PAGE 13

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
STA.SET= 31 CAT= PA						
BOSTIK EPOXY PRIMER	12.8	28.1	1530.9	3375.0	.0	.0
EPOXY RESIN	1.7	3.6	198.4	437.5		
AMINE CURING AGENT	.3	.6	34.0	75.0		
TITANIUM DIOXIDE	.3	.6	34.0	75.0		
CHROMATE PIGMENTS	.6	1.3	68.0	150.0		
INERT PIGMENTS	1.8	4.0	215.5	475.0		
SUSPENSION & FLOW CONTROL ADDI	<.1	.1	5.7	12.5		
SOLVENTS	7.7	16.9	918.5	2025.0		
STA.SET= 31 CAT= PA						
BOSTIK EPOXY TOPCOAT	17.5	38.5	2097.9	4625.0	.0	.0
EPICHLOROHYDRIN/BISPHENOL A	4.3	9.4	510.3	1125.0		
AMINE CURING AGENT	.7	1.5	79.4	175.0		
COLOR PIGMENT	3.5	7.8	425.2	937.5		
SUSPENSION & FLOW CONTROL ADDI	.2	.5	28.3	62.5		
SOLVENTS PHOTOCHEM REACTIVE	1.7	3.6	198.4	437.5		
SOLVENTS NONPHOTOCHEM REACTIVE	7.1	15.6	850.5	1875.0		
STA.SET= 31 CAT= PA						
RUSTOLEUM PRIMER	3.8	8.3	453.6	1000.0	.0	.0
SILICATES	.6	1.4	73.7	162.5		
YELLOW IRON OXIDE	.3	.6	34.0	75.0		
TITANIUM DIOXIDE	.1	.2	11.3	25.0		
CALCIUM BOROSILICATE	.7	1.6	85.0	187.5		
BENTONITE	<.1	<.1	2.3	5.0		
LINSEED PHENOLIC ALKYL RESIN	.8	1.7	90.7	200.0		
ALIPHATIC HYDROCARBONS	1.2	2.7	147.4	325.0		
DRIERS AND ADDITIVES	.1	.2	11.3	25.0		
STA.SET= 31 CAT= PA						
RUSTOLEUM TOPCOAT	3.8	8.3	453.6	1000.0	.0	.0
SILICATES	1.2	2.7	147.4	325.0		
TITANIUM DIOXIDE	.7	1.5	79.4	175.0		
BENTONITE CLAY	<.1	<.1	2.3	5.0		
TINTING COLORS	.1	.2	11.3	25.0		
ALKYL RESIN	.7	1.5	79.4	175.0		
ALIPHATIC HYDROCARBONS	1.1	2.5	136.1	300.0		
DRIERS & ADDOTIVES	<.1	.1	5.7	12.5		
STA.SET= 31 CAT= PA						
GACOFLEX	18.4	40.6	2211.3	4875.0	.0	.0
TITANIUM DIOXIDE	1.3	2.8	153.1	337.5		
CLAY	1.5	3.2	175.8	387.5		
HYPALON	1.8	4.1	221.1	487.5		
HYDROCARBON RESIN	.4	.8	45.4	100.0		
PERCHLOROETHYLENE	8.6	19.1	1037.6	2287.5		
1,1,1-TRICHLOROETHANE	4.6	10.2	555.6	1225.0		

(CONT.)

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
EPOXIDIZED SOYBEAN OIL	.2	.4	22.7	50.0		
STA.SET= 31 CAT= PA PAINT-SPILL ABSORBANT	.0	.0	.0	.0		
STA.SET= 31 CAT= PW ALODINE CONTAMINATED WASTEWATR	157.8 (18) (31)	347.9 (18) (31)	18937.4 (18) (31)	41750.0 (18) (31)	.0	.0
CHROMIC ACID	2.8	6.1	334.5	737.5		
FERRICYANIDE SALT	1.6	3.4	187.1	412.5		
COMPLEX FLUORIDE SALT	<.1	.1	5.7	12.5		
STA.SET= 31 CAT= SO PERCHLOROETHYLENE	.7	1.5	79.4	175.0	.0	.0
STA.SET= 31 CAT= SO TRICHLOROETHANE	.5	1.1	62.4	137.5	.0	.0
STA.SET= 31 CAT= SO FREON 113	.6	1.4	73.7	162.5	.0	.0
STA.SET= 31 CAT= SO MSA-1 CONTAMINATED MECl	1568.2	3457.3	188183.2	414875.0	.0	.0
STA.SET= 31 CAT= SO MSA-1 CONTAM PERCHLOROETHYLENE	1929.2	4253.1	231501.0	510375.0	.0	.0
STA.SET= 31 CAT= SO PERCHLOROETHYLENE	289.2	637.5	34699.6	76500.0	.0	.0
STA.SET= 31 CAT= SO TRICHLOROETHANE	85.0	187.5	10205.8	22500.0	.0	.0
STA.SET= 31 CAT= SO METHYLENE CHLORIDE	266.5	587.5	31978.1	70500.0	.0	.0
STA.SET= 31 CAT= SO MTA-2 CONTAMINATED SOLVENTS	551.9 (26)	1216.7 (26)	66224.1 (26)	146000.0 (26)	.0	.0
STA.SET= 31 CAT= SO BOSTIK CONTAMINATED SOLVENTS	275.9 (26)	608.3 (26)	33112.1 (26)	73000.0 (26)	.0	.0
STA.SET= 31 CAT= SO RUSTOLEUM CONTAMINATED SOLVENT	275.9 (26)	608.3 (26)	33112.1 (26)	73000.0 (26)	.0	.0
SUBTOTAL FOR SET 31	10027.2	22106.3	1203260.8	2652750.0	.0	.0
STA.SET= 32 CAT= BA LITHIUM STORAGE BATTERIES	25.5	56.3	3061.7	6750.0	.0	.0

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
STA.SET= 32 CAT= BA SILVER-ZINC STORAGE BATTERIES	42.5	93.8	5102.9	11250.0	.0	.0
STA.SET= 32 CAT= BA POTASSIUM HYDROXIDE SOLUTION	9.1[18]	20.0[18]	1088.6[18]	2400.0[18]	.0	.0
STA.SET= 32 CAT= CB HYDRAZINE-CONTAMINATED WATER	113.4[18]	250.0[18]	13607.7[18]	30000.0[18]	.0	.0
STA.SET= 32 CAT= CS CONTAMINATED SEAWATER[32]	.0	.0	.0	.0		
STA.SET= 32 CAT= CS CONTAMINATED SEAWATER[32]	15119.7	33333.3	1814360.0	4000000.0	.0	.0
STA.SET= 32 CAT= CW SRB FWD SKT CLEANING WASTES					.0	.0
STA.SET= 32 CAT= EW WASTEWATER FROM EEW&S	630.9[4]	1390.8[4]	75704.2[4]	166900.0[4]		
STA.SET= 32 CAT= FO BILGE WASTES					.0	.0
STA.SET= 32 CAT= FO DIESEL FUEL & OIL SPILLS	.0	.0	.0	.0		
STA.SET= 32 CAT= FS WASTE FUEL & PRIMOL 355[11] HYDRAZINE	.0 .0	.0 .0	.0 .0	.0 .0		
STA.SET= 32 CAT= HS HYDRAZINE SCRUBBER EFFLUENT HYDRAZINE	189.0[18] 1.7	416.7[18] 3.8	22679.5[18] 204.1	50000.0[18] 450.0	.0	.0
STA.SET= 32 CAT= HY HYDRAZINE	42.8	94.3	5131.2	11312.5	.0	.0
STA.SET= 32 CAT= IN INSULATION WASTES, SOLID[33] MSA-1 INSULATION MTA-2 INSULATION K5NA INSULATION PR-855 INSULATION	756.0[34]	1666.7[34]	90718.0[34]	200000.0[34]	.0	.0
STA.SET= 32 CAT= IN INSULATION CONTAM FILTERS	4.7[21]	10.4[21]	567.0[21]	1250.0[21]	.0	.0
STA.SET= 32 CAT= IW [illegible][33]	[illegible][18]	[illegible][18]	[illegible][18]	[illegible][18]	.0	.0

TABLE 13 (CONT.)

HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
MSA-1 INSULATION						
MTA-2 INSULATION						
K5NA INSULATION						
PR-855 INSULATION						
STA.SET= 32 CAT= PR					.0	.0
PRESERVATIVE CHEMICALS						
PROTECTIVE LUBRICANTS						
STA.SET= 32 CAT= PS					784.7[24]	1730.0[24]
SRB SOLID PROPELLANT	.0	.0	.0	.0		
AMMONIUM PERCHLORATE	.0	.0	.0	.0		
ALUMINUM POWDER	.0	.0	.0	.0		
FERRIC OXIDE	.0	.0	.0	.0		
POLYMER & EPOXY RESIN	.0	.0	.0	.0		
STA.SET= 32 CAT= SB						
DETERGENT WASHWATER[35]	36287.2	80000.0	4354464.0	9600000.0	.0	.0
STA.SET= 32 CAT= SB						
POTABLE RINSE WATER	125493.2	276666.6	15059188.0	33200000.0	.0	.0
STA.SET= 32 CAT= SB						
DEIONIZED RINSE WATER	58739.9	129500.0	7048788.0	15540000.0	.0	.0
STA.SET= 32 CAT= SI						
SRB RINSE WATER	22679.5	50000.0	2721540.0	6000000.0	.0	.0
STA.SET= 32 CAT= SO						
SOLVENTS	11.1[26]	24.4[26]	1326.8[26]	2925.0[26]	.0	.0
FREON TMC/TM						
SOLVENTS, UNSPECIFIED						
SUBTOTAL FOR SET 32	453156.4	999044.3	54378768.0	119885296.0	.0	.0
STA.SET= 33 CAT= CA						
AIR FILTERS	4.7[21]	10.4[21]	567.0[21]	1250.0[21]	.0	.0
STA.SET= 33 CAT= EW						
WASTEWATER FROM EEW&S	197.0	434.4	23643.4	52125.0		
STA.SET= 33 CAT= HF					.0	.0
HYDRAULIC FLUIDS						
SUBTOTAL FOR SET 33	201.8	444.8	24210.4	53375.0	.0	.0

TABLE 13 (CONT.)

HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
STA.SET= 99 CAT= AW						
GX-6300 ABLATOR ADHESIVE	6.1	13.5	737.1	1625.0	.0	.0
RESIN STM L 663	.6	1.4	73.7	162.5		
RESIN STM L 664	2.3	5.0	272.2	600.0		
SILICA POWDER	.2	.4	22.7	50.0		
CARBON POWDER	.2	.4	22.7	30.0		
CURING AGENT L 663	.2	.5	28.3	62.5		
CURING AGENT L 664	<.1	.1	5.7	12.5		
HEPTANE	2.5	5.4	294.8	650.0		
XYLENE	.1	.3	17.0	37.5		
STA.SET= 99 CAT= AW						
ISOCHEM POLYESTER RESIN ADHESV	6.1	13.5	737.1	1625.0	.0	.0
STYRENE						
MEK PEROXIDE CATALYST						
DIMETHYL PHTHALATE						
STA.SET= 99 CAT= CA					.0	.0
FILTER						
STA.SET= 99 CAT= CN						
SOLVENT CONTAMINATED CONTAINER	2.4(28)	5.2(28)	283.5(28)	625.0(28)	.0	.0
SOLVENTS(36)						
STA.SET= 99 CAT= CN						
PRIMER CONTAMINATED CONTAINERS	.3(28)	.7(28)	39.7(28)	87.5(28)	.0	.0
STA.SET= 99 CAT= CN						
ADHESIVE CONTAMINATED CONTAINR	.3(28)	.7(28)	39.7(28)	87.5(28)	.0	.0
STA.SET= 99 CAT= CN					.0	.0
SOLVENT CONTAINERS						
STA.SET= 99 CAT= CN						
POUR FOAM CONTAINERS	23.6(28)	52.1(28)	2834.9(28)	6250.0(23)	.0	.0
STA.SET= 99 CAT= CN						
ABLATOR CONTAMINATED CONTAINER	.3(28)	.7(28)	39.7(28)	87.5(28)	.0	.0
STA.SET= 99 CAT= CR						
SOLVENT CONTAMINATED RAGS	4.7(9)	10.4(9)	567.0(9)	1250.0(9)	.0	.0
STA.SET= 99 CAT= CR						
ADHESIVE CONTAMINATED RAGS	4.7(9)	10.4(9)	567.0(9)	1250.0(9)	.0	.0
STA.SET= 99 CAT= CR						
EPOXY PRIMER-CONTAMINATED RAGS	2.4(9)	5.2(9)	283.5(9)	625.0(9)	.0	.0
STA.SET= 99 CAT= IN						
BX-250 FOAM (SOFI)	122.8	270.8	14741.7	32500.0	.0	.0

(CONT.)

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
DIPHENYL METHANE DIISOCYANATE	30.7	67.7	3685.4	8125.0		
FREON 11	19.8	43.8	2381.3	5250.0		
AMINES	10.9	24.0	1304.1	2875.0		
POLYOLS						
SUPER MEK PEROXIDE						
POLYESTER RESIN						
DIMETHYL PHTHALATE						
STA.SET= 99 CAT= IN						
POUR FOAM (MIXED)[29]	129.9[37]	286.5[37]	15592.2[37]	34375.0[37]	.0	.0
POLYURETHANE						
STA.SET= 99 CAT= IN						
POUR FOAM PART A (UNMIXED)[30]	6.6	14.6	793.8	1750.0	.0	.0
DIPHENYL METHANE DIISOCYANATE	3.3	7.3	396.9	875.0		
FREON 11	2.1	4.7	255.1	562.5		
POLYOLS, AMINES	1.2	2.6	141.7	312.5		
STA.SET= 99 CAT= IN						
POUR FOAM PART B (UNMIXED)[30]	6.6	14.6	793.8	1750.0	.0	.0
FREON 11	1.3	2.9	158.8	350.0		
AMINE CATALYST	.1	.3	17.0	37.5		
POLYETHER POLYOL BLEND	5.2	11.4	618.0	1362.5		
STA.SET= 99 CAT= IN						
POUR FOAM CONTAMINATED PAPER	1.6[28]	3.4[28]	187.1[28]	412.5[28]	.0	.0
STA.SET= 99 CAT= IN						
SUPER LIGHT ABLATOR (I)	4.7	10.4	567.0	1250.0	.0	.0
RESIN L664, PT A	2.8	6.1	334.5	737.5		
SILICA FIBERS	.3	.6	34.0	75.0		
CORK	.6	1.3	68.0	150.0		
PHENOLIC MICROSPHERES	.1	.3	17.0	37.5		
SILICA MICROSPHERES	.7	1.5	79.4	175.0		
CURING AGENT	.3	.6	34.0	75.0		
STA.SET= 99 CAT= IN						
SUPER LIGHT ABLATOR (II)	4.7	10.4	567.0	1250.0	.0	.0
RESIN STM L664, PT A	1.4	3.1	170.1	375.0		
CARBON POWDER						
SILICA FIBERS						
CORK						
SILICA MICROSPHERES						
PHENOLIC MICROSPHERES						
CURING AGENT STM L664, PT B	.8	1.8	96.4	212.5		
STA.SET= 99 CAT= IN						
POUR FOAM "TRIMMINGS"	4.7	10.4	567.0	1250.0	.0	.0
POLYURETHANE						

TABLE 13 (CONT.) HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

WASTE MATERIAL	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
STA.SET= 99 CAT= PA						
EPOXY PRIMER	<.1 (27)	.1 (27)	5.7 (27)	12.5 (27)	.0	.0
METHYLENE ISOBUTYL KETONE						
XYLENE						
CYCLOHEXANONE						
CHROMATES						
INORGANIC PIGMENTS						
N-BUTANOL						
TOLUENE						
AMINO SILANE						
METHYL ETHYL KETONE						
STA.SET= 99 CAT= PA						
D.C. 1200	<.1 (27)	.1 (27)	5.7 (27)	12.5 (27)	.0	.0
VM AND P NAPTHA						
ORGANOMETALLIC SALTS						
STA.SET= 99 CAT= SO						
FREON TMC	.1 (27)	.3 (27)	17.0 (27)	37.5 (27)	.0	.0
STA.SET= 99 CAT= SO						
1,1,1-TRICHLOROETHANE	.1 (27)	.3 (27)	17.0 (27)	37.5 (27)	.0	.0
STA.SET= 99 CAT= SO						
MEK & CELLOSOLVE	12.7	28.0	1525.2	3362.5	.0	.0
STA.SET= 99 CAT= SO						
HEPTANE	78.2	172.4	9383.6	20687.5	.0	.0
STA.SET= 99 CAT= SO						
CELLOSOLVE ACETATE	111.5	245.8	13380.9	29500.0	.0	.0
STA.SET= 99 CAT= SO						
METHYL ETHYL KETONE	92.1	203.0	11050.6	24362.5	.0	.0
STA.SET= 99 CAT= SR						
SOLVENT REDUCER	.6	1.3	68.0	150.0	.0	.0
METHYL ETHYL KETONE	.4	.8	45.4	100.0		
CYCLOHEXANONE	.2	.4	22.7	50.0		
STA.SET= 99 CAT= SW						
SOLVENT CONTAMINATED WATER	84.4	186.0	10126.4	22325.0	.0	.0
SUBTOTAL FOR SET 99	712.7	1571.1	85518.7	188537.5	.0	.0
TOTAL FOR ALL SETS	1087304.3	2388289.5	129996512.0	286594752.0	3189751.5	7032235.0

TABLE 13 (CONT.)
SUMMARY BY CATEGORY

HAZARDOUS WASTE GENERATION FOR TOTAL PROJECT

CATEGORY	BASELINE MONTHLY (AVERAGE) KILOGRAMS	POUNDS	BASELINE FOR PROJECT KILOGRAMS	POUNDS	CONTINGENCY FOR PROJECT KILOGRAMS	POUNDS
SO	8605.7	18972.4	1032682.6	2276687.5	.0	.0
EW	14076.1	31032.7	1689135.0	3723925.0	.0	.0
FO	39.7	87.5	4762.7	10500.0	.0	.0
FS	4226.4	9317.7	507170.3	1118125.0	.0	.0
OS	1283.9	2830.6	154073.2	339675.0	.0	.0
HF	419.3	924.5	50320.1	110937.5	.0	.0
AW	30.0	66.1	3600.4	7937.5	.0	.0
CN	2917.4	6431.8	350086.4	771812.5	.0	.0
CR	40.2	88.5	4819.4	10625.0	.0	.0
HS	4040.7	8908.3	484887.7	1069000.0	.0	.0
HY	444.5	980.0	53342.2	117600.0	449305.8	990555.0
IN	1228.8	2709.0	147450.8	325075.0	.0	.0
MH	487.1	1074.0	58456.4	128875.0	64645.6	142520.0
NH	37.8	83.3	4535.9	10000.0	471.7	1040.0
NO	455.0	1003.0	54595.2	120362.5	650502.5	1434120.0
PA	85.5	188.5	10262.5	22625.0	.0	.0
SW	1592.1	3509.9	191046.4	421187.5	.0	.0
WP	4.7	10.4	567.0	1250.0	.0	.0
PS	.0	.0	.0	.0	5043797.7	11119730.0
QW	591556.9	1304166.5	70986832.0	156500000.0	.0	.0
AL	.0	.0	.0	.0	.0	.0
CA	52.0	114.6	6236.9	13750.0	.0	.0
PW	157.8	347.9	18937.4	41750.0	.0	.0
BA	77.1	170.0	9253.2	20400.0	.0	.0
CB	113.4	250.0	13607.7	30000.0	.0	.0
CS	15119.7	33333.3	1814360.0	4000000.0	.0	.0
CW	.0	.0	.0	.0	.0	.0
IW	193012.0	425520.9	23161440.0	51062504.0	.0	.0
PR	.0	.0	.0	.0	.0	.0
SB	220520.3	486166.7	26462440.0	58340000.0	.0	.0
SI	22679.5	50000.0	2721540.0	6000000.0	.0	.0
SR	.6	1.3	68.0	150.0	.0	.0

* For footnotes, see Table 8.

SECTION 5

SUMMARY OF HAZARDOUS WASTE GENERATION

1. INTRODUCTION

The space shuttle program at Vandenberg Air Force Base is expected to generate a variety of hazardous wastes during its years of operation, from 1985 to 1994. The purpose of this report is to present an inventory of the expected types and quantities of waste to be generated by shuttle-related ground operations. The inventory provides estimates for:

- Types of wastes generated.
- Chemical constituents in each waste stream.
- Mass and/or volume of waste generated during scheduled ground operations (per launch cycle, per month per year, and project total).
- Mass and/or volume of waste generated under contingency conditions (per contingency event, per year, and project total).
- EPA and California hazardous waste numbers for each waste.
- EPA and California hazardous properties for each waste.
- California compatibility class for each waste.

The inventory will be used to assess waste management options (Volume II of this report), to complete EPA hazardous waste forms, and for preparing the supplement to the Environmental Impact Statement required for the Space Transportation System (STS) project.

2. SOURCES OF WASTE

A summary of the hazardous wastes generated over the duration of the STS project at VAFB is given in Tables 14, 15, and 16; monthly, yearly, and total project quantities are reported, respectively, for normal operations and contingency conditions.

TABLE 14. SUMMARY OF BASELINE MONTHLY HAZARDOUS WASTE GENERATION, 1985-1994, BY STATION SET

Station Set	Monthly for 1985		Monthly for 1986		Monthly for 1987		Monthly for 1988-1994	
	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds
17	908.5	2,002.8	1,362.7	3,004.2	2,271.1	5,007.0	3,406.7	7,510.5
18	1.4	3.2	2.2	4.8	3.6	7.9	5.4	11.9
19	2,339.5	5,157.8	3,509.3	7,736.7	5,848.8	12,894.5	8,773.2	19,341.8
21	1,128.9	2,488.7	1,693.3	3,733.1	2,822.2	6,[illegible]	4,233.2	9,332.8
23	192,975.4	425,440.3	289,463.2	638,160.5	482,438.6	1,063,600.8	723,658.3	1,595,401.8
31	3,208.7	7,074.0	4,813.0	10,611.0	8,021.7	17,685.0	12,032.6	26,527.5
32	145,010.0	319,694.1	217,515.1	479,541.2	362,525.1	799,235.4	543,787.8	1,198,853.0
33	64.6	142.3	96.8	213.5	161.4	355.8	242.1	533.8
99	227.6	501.7	341.3	752.5	568.9	1,254.2	853.3	1,881.3
Other	792.3	1,746.7	1,188.4	2,620.0	1,980.7	4,366.7	2,971.0	6,550.0
TOTAL	346,656.8	764,251.5	519,985.3	1,146,377.5	866,642.3	1,910,629.8	1,299,963.8	2,865,9[illegible].5

TABLE 15. SUMMARY OF BASELINE YEARLY HAZARDOUS WASTE GENERATION, 1985-1994, BY STATION SET

Station Set	1985		1986		1987		Yearly for 1988-1994		Project Total	
	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds
17	10,901.4	24,033.6	16,352.1	36,050.4	27,253.5	60,084.0	40,880.3	90,126.0	340,668.8	751,050.0
18	17.2	38.0	25.9	57.0	43.1	95.0	64.6	142.5	538.6	1,187.5
19	28,074.3	61,893.6	42,111.5	92,840.4	70,185.8	154,734.0	105,278.7	232,101.0	877,322.5	1,934,175.0
21	13,546.4	29,864.8	20,319.6	44,797.2	33 865.9	74,662.0	50,798.9	111,993.0	423,324.2	933,275.0
23	2,315,705.0	5,105,283.0	3,473,558.5	7,657,926.0	5,789,264.0	12,763,210.0	8,683,898.0	19,144,820.0	72,365,810.0	159,540,148.0
31	38,504.4	84,888.0	57,756.5	127,332.0	96,260.9	212,220.0	144,391.3	318,330.0	1,203,260.8	2,652,750.0
32	1,740,120.5	3,836,329.0	2,610,181.0	5,754,494.0	4,350,302.0	9,590,824.0	6,525,452.0	14,386,236.0	54,378,764.0	119,885,292.0
33	774.7	1,708.0	1,162.1	2,562.0	1,936.8	4,270.0	2,905.2	6,405.0	24,210.3	53,375.0
99	2,730.6	6,020.0	4,095.9	9,030.0	6,826.5	15,050.0	10,239.8	22,575.0	85,331.6	188,125.0
Other	9,507.2	20,960.0	14,260.9	31,440.0	23,768.1	52,400.0	35,652.2	78,600.0	297,101.5	655,000.0
TOTAL	4,159,882.0	9,171,018.0	6,239,824.0	13,756,530.0	10,399,710.0	22,927,556.0	15,599,566.0	34,391,336.0	129,996,350.0	286,594,408.0

TABLE 16. SUMMARY OF CONTINGENCY HAZARDOUS WASTE GENERATION, 1985-1994, BY STATION SET

	1985		1986		1987		1988-1994 (per year)		Project Total	
Station Set	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds
17	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0
19	7,731.6	17,045.5	7,731.6	17,045.5	7,731.6	17,045.5	7,731.6	17,045.5	77,316.0	170,455.0
21	11,430.5	25,200.0	14,696.3	32,400.0	21,228.0	46,800.0	29,392.6	64,800.0	253,103.0	558,000.0
23	102,205.6	225,326.0	102,205.6	225,326.0	102,205.6	225,326.0	102,205.6	225,326.0	1,022,056.0	2,253,260.0
31	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
TOTAL	121,367.7	267,571.5	124,633.5	274,771.5	131,165.2	289,171.5	139,329.[illegible]	307,171.5	1,352,475.0	2,981,715.0

As shown in Table 15, total baseline waste generation for the STS project is anticipated to be 130 million kg (287 million lbs). Annual waste generation is estimated to range from 4.2 million kg/yr (9.2 million lbs/yr) for 1985, to 15.6 million kg/yr (34.5 million lbs/yr) for each of the years 1988 through 1994. This increase reflects changes in the number of launches per year from 4 to 15. Baseline waste generation for each year of the project is graphically represented in Figure 10.

The greatest quantities of wastes are expected to be generated by V23 (72 million kg; 160 million lbs for total project), followed by Station Set V32 (54 million kg; 120 million lbs for total project). This accounts for 97.5 percent by weight of all baseline hazardous waste generation. The combined waste generated by all other Station Sets is projected to be 2.5 orders of magnitude less by weight than waste generation at V23 and V32.

Expressed as percentages by weight (Figure 11), Station Set V23 is projected to generate 55.7 percent of the total under normal operating conditions; V32 approximately 41.8 percent; and V19 and V31, less than 1 percent each. The balance of these wastes (i.e., 0.9 percent) will be generated mainly by Station Sets V17 and V21.

According to Table 16, estimated total project waste generated under contingency conditions is 1.4 million kg (3.0 million lbs). The only station sets identified to date as potential generators of contingency wastes are V19, V21, and V23 (Figure 12). Station set V23 will produce approximately 84 percent by weight of all contingency waste.

Investigations into the physical state of the hazardous wastes generated during normal operations indicate that the majority of wastes are in a liquid state (Figure 13a). Major sources of liquid hazardous wastes, as shown in Figure 13c, are expected to be produced during normal ground operations at Station Sets V23 (55.9 percent) and V32 (41.9 percent). Other station sets each produce less than 1 percent of total liquid wastes. In summary, 99.6 percent by weight (1.0 million kg; 2.3 million lbs) of all the hazardous wastes will be in a liquid form (Figure 13a). This translates to 92.7 percent on a volumetric basis.

Only 0.4 percent by weight (7.3 percent by volume) of all hazardous wastes are expected to be in a solid state (Figure 13a). Most solid waste will be produced by Station Set V31 (71.5 percent) and Station Set V32 (19.1 percent) as shown in Figure 13b. Solid waste generation by all other station sets is less than 10 percent of total solids.

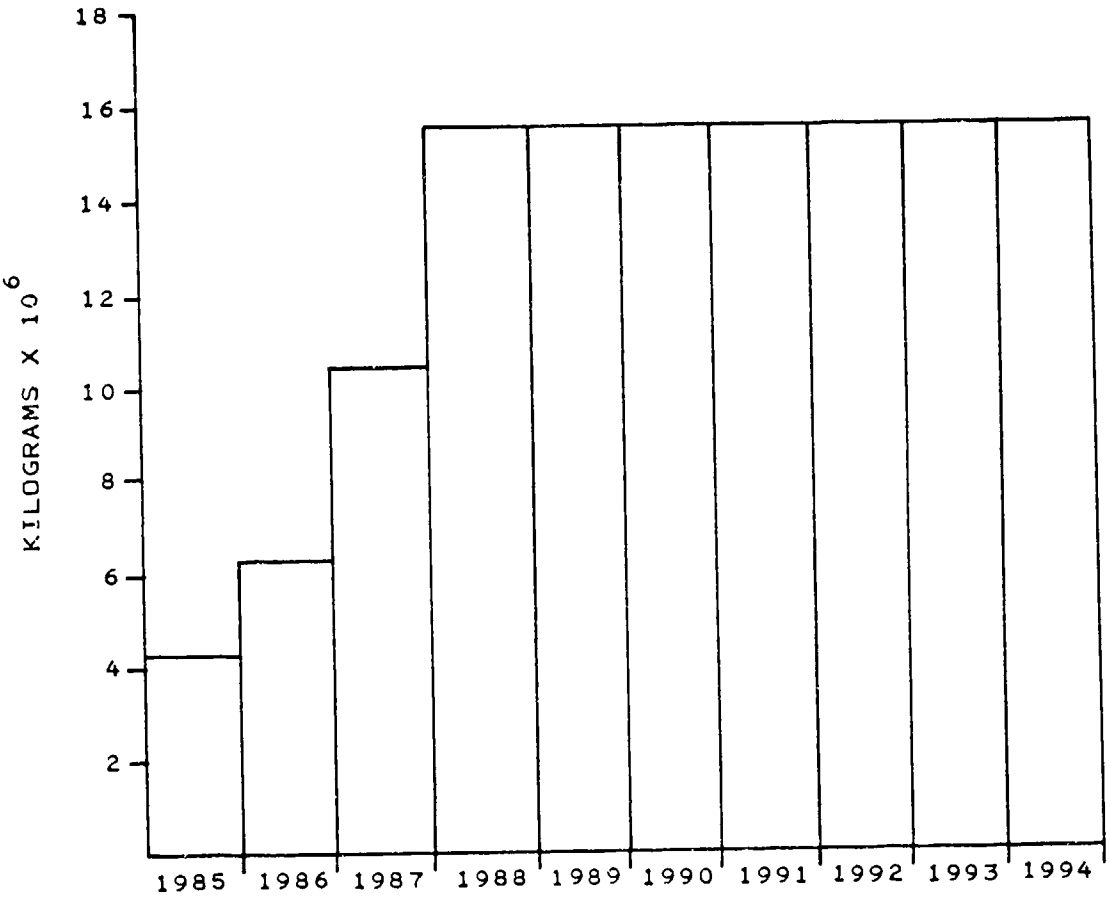

Figure 10. Baseline quantities of hazardous waste generated by STS ground operations at VAFB (reported for each year for the period 1985 through 1994).

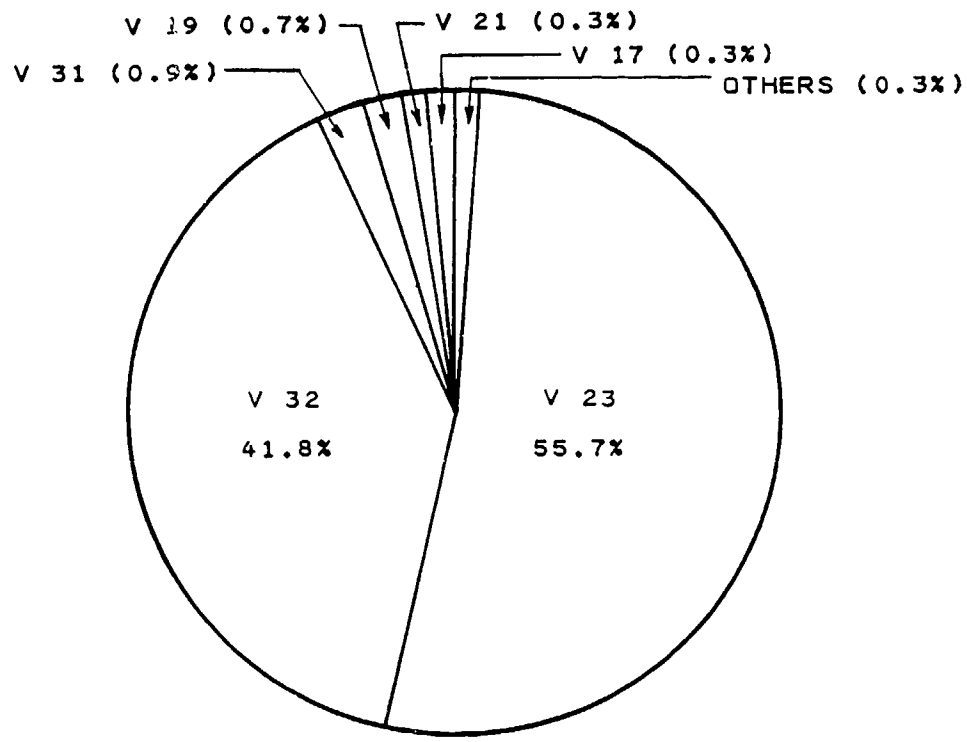

Figure 11. Baseline quantities of hazardous waste generated by STS ground operations at VAFB (reported by station set).

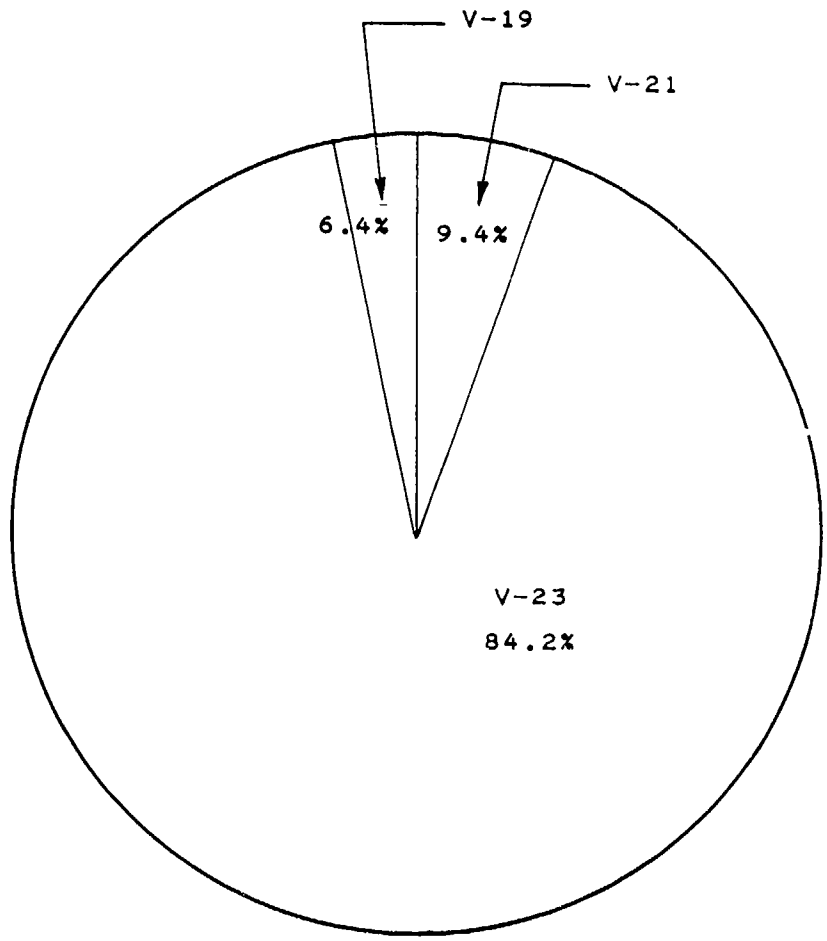

Figure 12. Contingency waste generated by STS ground operations at VAFB (Station Sets V19, V21, and V23).

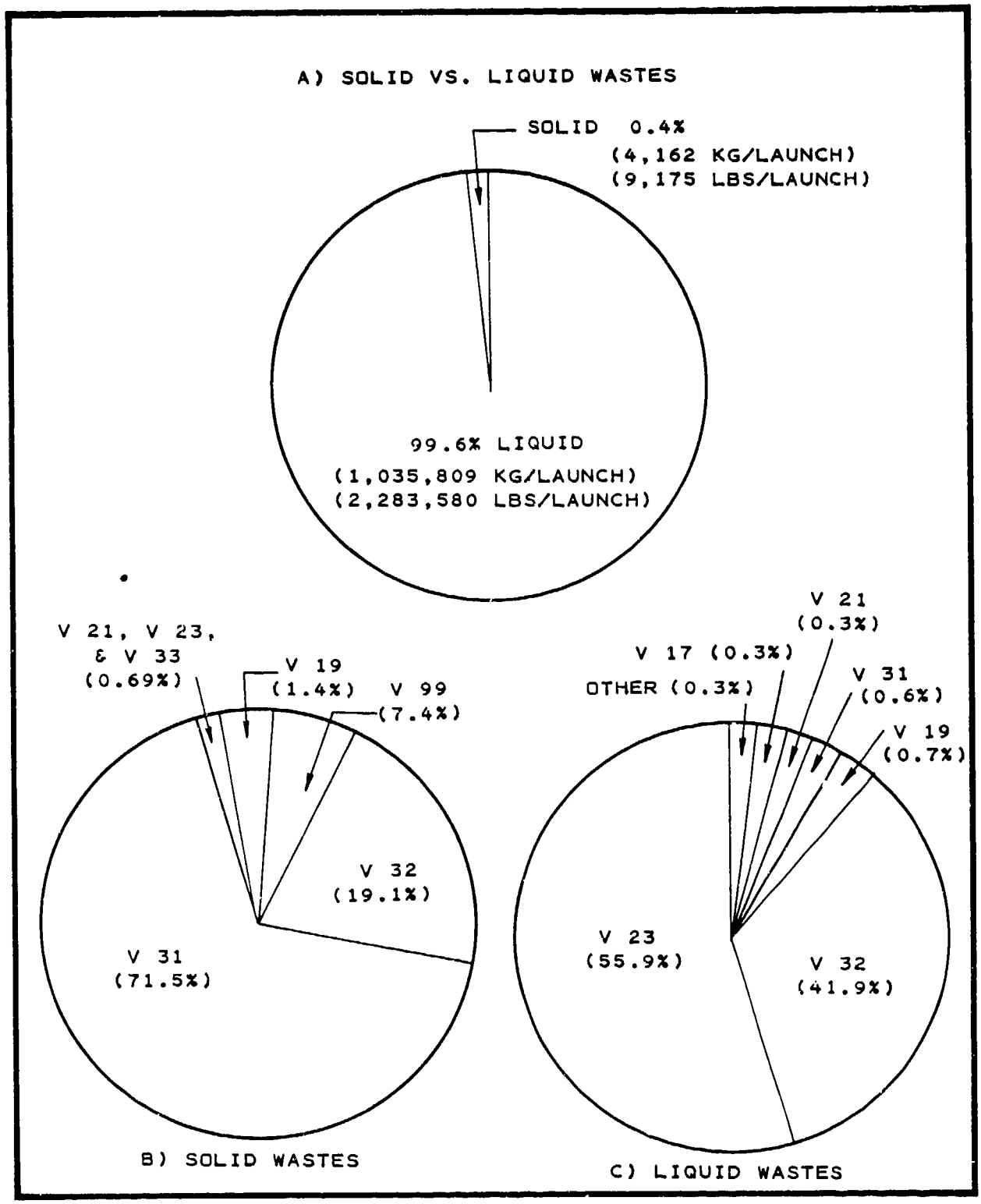

Figure 13. Physical state of hazardous waste generated by STS ground operations at VAFB under baseline conditions (reported by station set).

3. MAJOR TYPES OF WASTES GENERATED

Waste categories generated in the largest quantities are expected to be:

- Quench water (QW).
- SRB wash water (SB).
- Insulation wastewater (or "suprawater") (IW).
- SRB initial rinse (SI).
- Contaminated seawater (CS).
- Nonaqueous solvent wastes (SO).
- EEW&S wastewater (EW).
- Fuel spill cleanup wastes (FS).
- Hydraziane scrubber effluent (HS).

These wastes are estimated to constitute 99.4 percent by weight of total waste generation (129 million kg; 284 million lbs). The QW is projected to be the most predominant waste type, followed by SB and IW wastes. As shown in Figure 14a, these three waste types constitute 54.6, 20.4, and 17.8 percent by weight, respectively, of the total quantity of wastes generated by the major waste categories. Other major waste categories produce 7.2 percent of the total waste. The remaining 0.6 percent of waste is associated with the following minor categories (Figure 14b):

- Adhesive wastes (AW).
- Batteries (BA).
- Contaminated air filters (CA).
- Catalytic bed wash water (CB).
- Containers (CN).
- Contaminated rags (CR).
- Hydraulic fluids (HF).
- Hydrazine (HY).
- Insulation wastes, solid (IN).
- Monomethyl hydrazine (MH).
- Ammonia or ammonia wastewater (NH).
- Nitrogen tetroxide (NO).
- Oxidizer spill cleanup (OS).
- Paint wastes (PA).
- Paint wastewaters (PW).
- Solvent reducer wastes (SR).
- Solvent wastewaters (SW).
- Worn-out parts (WP).

The first three minor categories are expected to jointly contribute over 60 percent by weight to the 0.6 percent of minor wastes.

4. HAZARDOUS AND ACUTELY HAZARDOUS WASTES

Further breakdown of wastes into hazardous and acutely hazardous categories reveals that only 1.8 percent by weight of total hazardous wastes are expected to exhibit acutely hazardous properties (Figure 15a). Primary generators of acutely hazardous

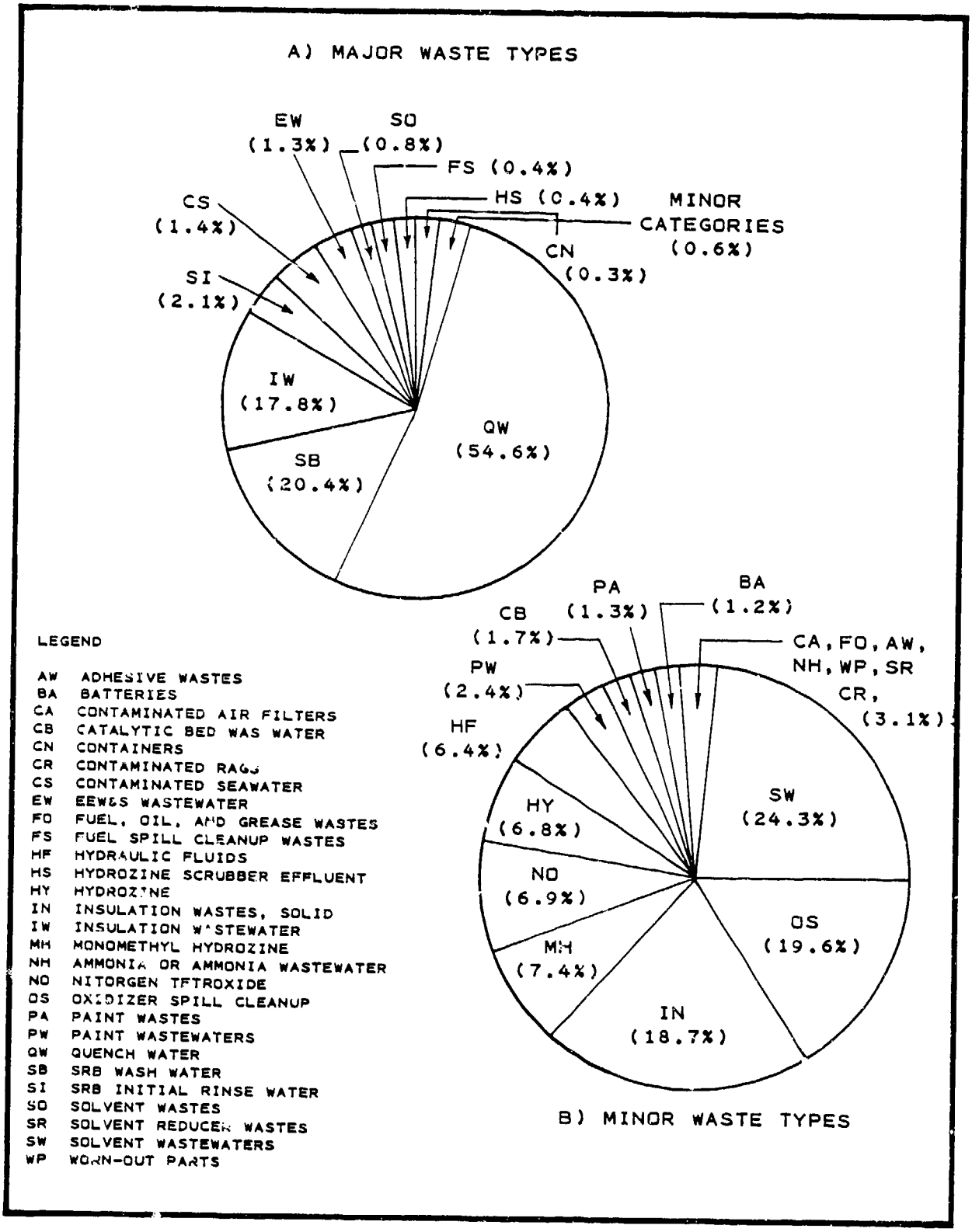

Figure 14. Hazardous waste generated under baseline conditions, by waste type.

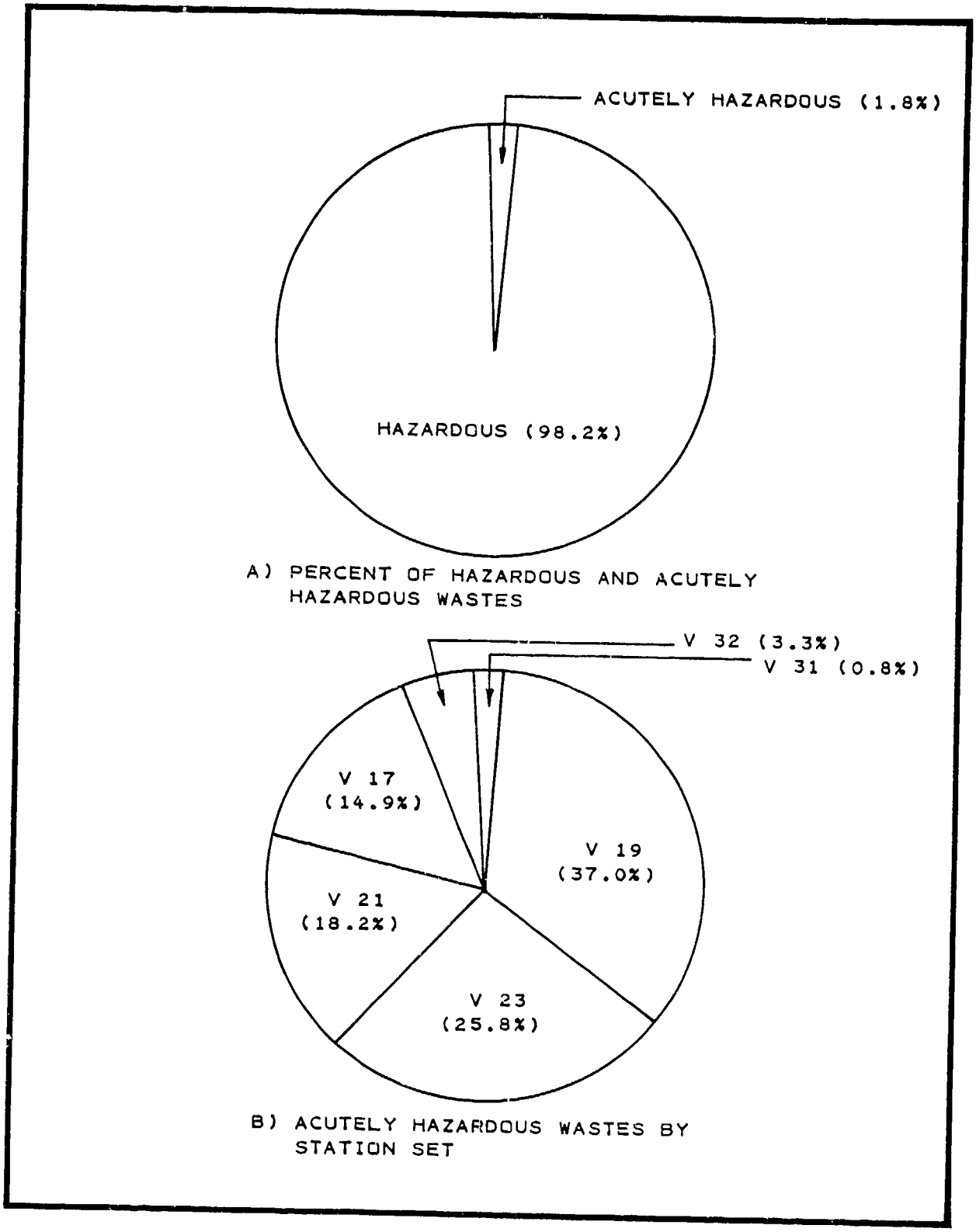

Figure 15. Hazardous and acutely hazardous waste generation under baseline conditions.

waste will be Station Sets V19 (37.0 percent), V23 (25.8 percent), V21 (18.2 percent), and V17 (14.9 percent) (Figure 15b). The remaining 4.1 percent is expected to be generated by Station Sets V31 and V32 (3.3 and 0.8 percent, respectively) (Figure 15b). As shown in Figure 16, most of the hazardous wastes generated by Station Sets V17, V19 and V21 are expected to exhibit acutely hazardous properties.

Generation rates for hazardous and acutely hazardous wastes are provided in Tables 17 and 18. Total projected baseline quantities of hazardous and acutely hazardous waste per launch are 1.0 million kg (2.2 million lb) and 0.02 million kg (0.04 million lb), respectively (Table 14). Consequently, the projected cumulative generation of these wastes for the period 1985 through 1994 is expected to be 128 million kg (282 million lb) and 2.3 million kg (5.1 million lb), respectively (Table 18).

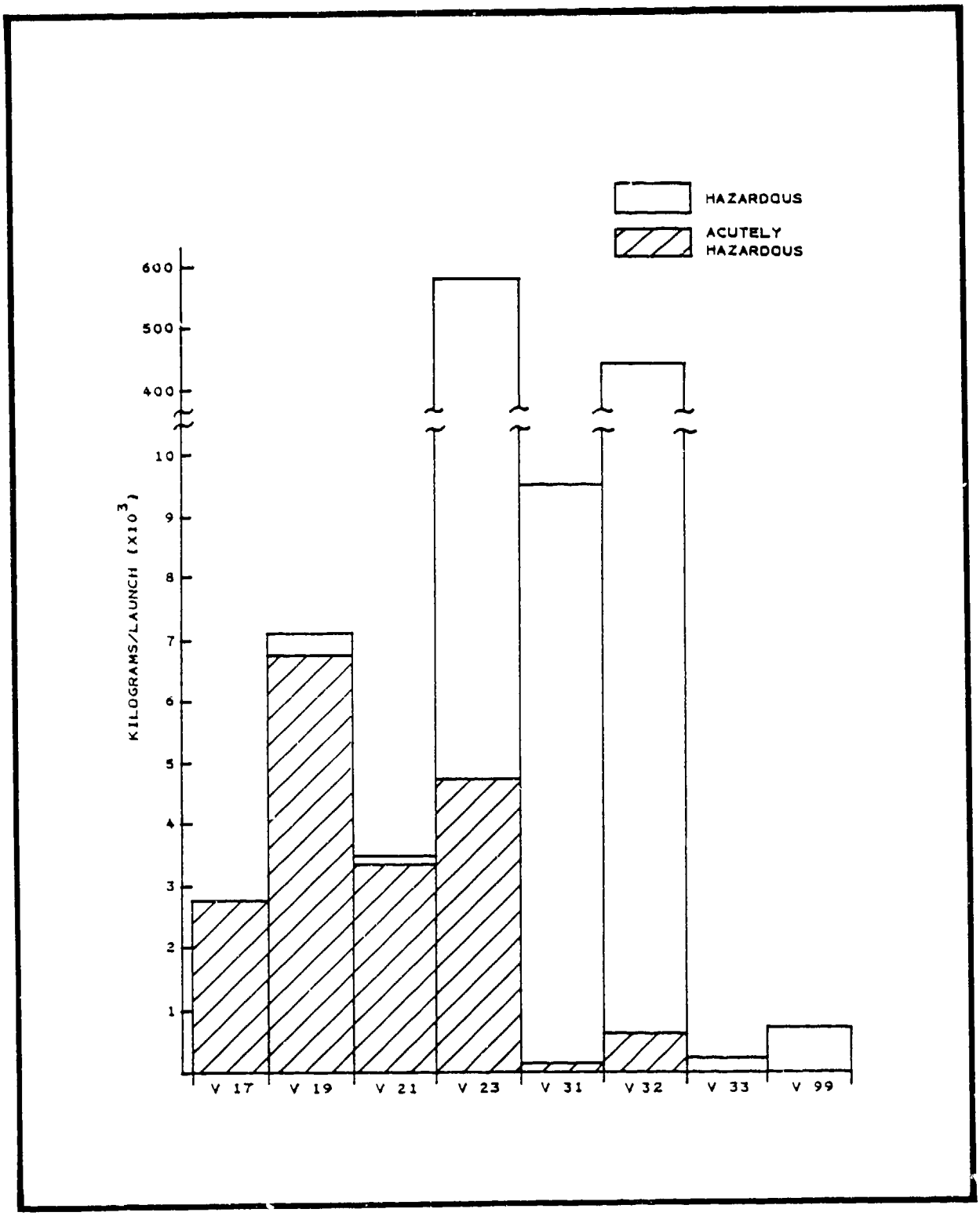

Figure 16. Comparison of hazardous and acutely hazardous waste generation under baseline conditions (reported by station set on a per launch basis).

TABLE 17. SUMMARY OF HAZARDOUS AND ACUTELY HAZARDOUS WASTE GENERATION PER MONTH, 1985-1994.

	Per Launch		1985 Monthly		1986 Monthly		1987 Monthly		1988-1994 Monthly	
	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds
Acutely Hazardous Wastes	18,333.3	40,418.3	6,111.1	13,472.8	9,166.7	20,209.2	15,277.8	33,681.9	22,916.7	50,522.9
Hazardous Wastes	1,021,637.3	2,252,336.7	340,545.7	750,778.7	510,818.6	1,126,168.1	851,363.7	1,876,947.9	1,277,047.1	2,815,421.6
TOTAL	1,039,970.6	2,292,755.0	346,656.8	764,251.5	519,985.3	1,146,377.5	866,642.5	1,910,629.8	1,299,963.8	2,865,944.5

TABLE 18. SUMMARY OF HAZARDOUS AND ACUTELY HAZARDOUS WASTE GENERATION PER YEAR, 1985 - 1994

	1985		1986		1987		1988-1994 (per year)		Total for Project	
	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms	Pounds
Acutely Hazardous Wastes	73,333.4	161,673.2	110,000.0	242,509.8	183,333.4	404,183.0	275,000.1	606,274.5	2,231,667.1	5,052,287.5
Hazardous Wastes	4,086,548.6	9,009,344.8	6,129,824.0	13,514,020.2	10,215,376.6	22,523,373.0	15,324,566.9	33,705,092.5	127,704,636.9	281,542,017.5
TOTAL	4,159,882.0	9,171,018.0	6,239,824.0	13,756,530.0	10,399,710.0	22,927,556.0	15,599,566.0	34,391,366.0	129,996,304.0	286,594,304.0

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APPENDIX A

HAZARDOUS WASTE GENERATION BY STS GROUND OPERATIONS AT VAFB, LISTED BY EPA HAZARDOUS WASTE NUMBER

APPENDIX A

The following tables were compiled to assist VAFB personnel in completing all pertinent EPA notification and application forms. Both tables are organized by EPA hazardous waste number, in much the same fashion as required by the Hazardous Waste Permit Application Form 3510-3. Estimated annual hazardous waste quantities are presented for each waste. These quantities are based on the numerical data available at the time that the information was developed. Those hazardous waste numbers described as "included with above" are components of the quantified waste number above; as components, they do not need to be quantified separately if the total mixed waste is quantified. Table A-1 further divides the wastes by station set. Table A-2 presents the hazardous waste numbers and annual quantities for the project as a whole.

TABLE A-1. EPA DESCRIPTION OF HAZARDOUS WASTE
(by Station Set)

Station Set	EPA Hazardous Waste No.	Quantity per Launch	Estimated Annual Quantity (kg) 1985	1986	1987	1988-1994 (per year)	Project Total
V 17	*D001						
	P068	2,725.4	10,901.6	16,352.4	27,254.0	40,881.0	340,675.0
	*P080						
V 18	D001	4.3	17.2	25.8	43.0	64.5	537.5
V 19	*D000						
	U013 included with above						
	U092 included with above						
	D001	17.9	71.6	107.4	179.0	268.5	2,237.5
	F002 included with above						
	F003 included with above						
	F005 included with above						
	U159 included with above						
	D002	3,157.0	12,628.0	18,942.0	31,570.0	47,355.0	394,625.0
	P068 included with above						
	U133 included with above						
	D003	0.5	2.0	3.0	5.0	7.5	62.5
	F002 included with above						
	F017	27.4	109.6	164.4	274.0	411.0	3,425.0
	D001 included with above						
	D007 included with above						
	U159 included with above						
	U220 included with above						
	P068	3,165.2	12,660.8	18,991.2	31,652.0	47,478.0	395,650.0
	P030	514.7	2,058.8	3,088.2	5,147.0	7,720.5	64,337.5
	*U080						
	U133	68.0	272.0	408.0	680.0	1,020.0	8,500.0
	U159	42.4	169.6	254.4	424.0	636.0	5,300.0
V 21	D001	9.0	36.0	54.0	90.0	135.0	1,125.0
	D002	470.9	1,883.6	2,825.4	4,709.0	7,063.5	58,862.5
	P068 included with above						
	P068	2,725.4	10,901.6	16,352.4	27,254.0	40,881.0	340,675.0
	P080	139.1	556.4	834.6	1,391.0	2,086.5	17,387.5
	U159	42.4	169.6	254.4	424.0	636.0	5,300.0

TABLE A-1 (continued)

Station Set	EPA Hazardous Waste No.	Quantity per Launch	Estimated Annual Quantity (kg) 1985	1986	1987	1988-1994 (per year)	Project Total
V 23	D001	2,323.1	9,292.4	13,938.6	23,231.0	34,846.5	290,387.5
	D002	568,092.2	2,275,968.8	3,413,953.2	5,689,922.0	8,534,883.0	71,124,025.0
	P068 included with above						
	U133 included with above						
	*D003						
	P068	3,358.9	13,435.6	20,153.4	33,589.0	50,383.5	419,862.5
	P080	1,015.7	4,062.8	6,094.2	10,157.0	15,235.5	126,962.5
	U133	3,236.3	12,945.2	19,417.8	32,363.0	48,544.5	404,537.5
V 31	D001	2,506.1	10,024.4	15,036.6	25,061.0	37,591.5	313,262.5
	D003 included with above						
	F002 included with above						
	U013 included with above						
	U210 included with above						
	D002	37.6	150.4	225.6	376.0	564.0	4,700.0
	D007	153.8	615.2	922.8	1,538.0	2,307.0	19,225.0
	D002 included with above						
	P055 included with above						
	F001	4.5	18.0	27.0	45.0	67.5	562.5
	F002	3,973.6	15,894.4	23,841.6	39,736.0	59,604.0	496,700.0
	F005	552.5	2,210.0	3,315.0	5,525.0	8,287.5	69,062.5
	F017	1,272.0	5,088.0	7,632.0	12,720.0	19,080.0	159,000.0
	D001 included with above						
	D003 included with above						
	D007 included with above						
	F002 included with above						
	F003 included with above						
	F005 included with above						
	U210 included with above						
	U133	109.5	438.0	657.0	1,095.0	1,642.5	13,687.5
	U159	529.8	2,119.2	3,178.8	5,298.0	7,947.0	66,225.0
	U210	0.6	2.4	3.6	6.0	9.0	75.0
	D001 included with above						
	F002 included with above						

TABLE A-1 (continued)

Station Set	EPA Hazardous Waste No.	Quantity per Launch	Estimated Annual Quantity (kg) 1985	1986	1987	1988-1994 (per year)	Project Total
V 32	D001	740.8	2,963.2	4,444.8	7,408.0	11,112.0	92,600.0
	D002 included with above						
	D002	323.5	1,294.0	1,941.0	3,235.0	4,852.5	40,437.5
	U133 included with above						
	D003						
	D011	40.8	163.2	244.3	408.0	612.0	5,100.0
	P068	605.6	2,422.4	3,633.6	6,056.0	9,084.0	75,700.0
	U133	41.0	164.0	246.0	410.0	615.0	5,125.0
V 33	D001	193.7	774.8	1,162.2	1,937.0	2,905.5	24,212.5
V 99	D001	345.8	1,383.2	2,074.8	3,458.0	5,187.0	43,225.0
	U229 included with above						
	U239 included with above						
	D003	128.3	513.2	769.8	1,283.0	1,924.5	16,037.5
	D001 included with above						
	U102 included with above						
	U160 included with above						
	U229 included with above						
	F002	0.2	0.8	1.2	2.0	3.0	25.0
	F005	81.0	324.0	486.0	810.0	1,215.0	10,125.0
	F017	0.1	0.4	0.6	1.0	1.5	12.5
	D001 included with above						
	D007 included with above						
	F003 included with above						
	U057 included with above						
	U159 included with above						
	U161 included with above						
	U220 included with above						
	U239 included with above						
	U159	101.1	404.4	606.6	1,011.0	1,516.5	12,637.5
	U057 included with above						
Other	F002	2,376.8	9,507.2	14,260.8	23,768.0	35,652.0	297,100.0

* Data not presently available.

TABLE A-2. EPA DESCRIPTION OF HAZARDOUS WASTE
(Overall)

EPA Hazardous Waste No.	Quantity per Launch	Estimated Annual Quantity (kg) 1985	1986	1987	1988-1994 (per year)	Project Total
*D000						
U013	included with above					
U092	included with above					
D001	6,140.7	24,562.8	36,844.2	61,407.0	92,110.5	767,587.5
D002	included with above					
D003	included with above					
F002	included with above					
F003	included with above					
F005	included with above					
U013	included with above					
U159	included with above					
U210	included with above					
U229	included with above					
U239	included with above					
D002	572,981.2	2,291,924.8	3,437,887.2	5,729,812.0	8,594,718.0	71,622,650.0
P068	included with above					
U133	included with above					
D003	128.8	515.2	772.8	1,288.0	1,932.0	16,100.0
D001	included with above					
F002	included with above					
U102	included with above					
U160	included with above					
U229	included with above					
D007	153.8	615.2	922.8	1,538.0	2,307.0	19,225.0
D002	included with above					
P055	included with above					

TABLE A-2 (continued)

EPA Hazardous Waste No.	Quantity per Launch	Estimated Annual Quantity (kg) 1985	1986	1987	1988-1994 (per year)	Project Total
D011	40.8	163.2	244.8	408.0	612.0	5,100.0
F001	4.5	18.0	27.0	45.0	67.5	562.5
F002	6,350.6	25,402.4	38,103.6	63,506.0	95,259.0	793,825.0
F005	633.5	2,534.0	3,801.0	6,335.0	9,502.5	79,187.5
F017	1,299.5	5,198.0	7,797.0	12,995.0	19,492.5	162,437.5
D001 included with above						
D003 included with above						
D007 included with above						
F002 included with above						
F003 included with above						
F005 included with above						
U057 included with above						
U159 included with above						
U161 included with above						
U210 included with above						
U220 included with above						
U239 included with above						
P068	12,580.5	50,322.0	75,483.0	125,805.0	188,707.5	1,572,562.5
P080	1,669.5	6,678.0	10,017.0	16,695.0	25,042.5	208,687.5
*U080						
U133	3,454.8	13,819.2	20,728.8	34,548.0	51,822.0	431,850.0
U159	715.7	2,862.8	4,294.2	7,157.0	10,735.5	89,462.5
U057 included with above						
U210	0.6	2.4	3.6	6.0	9.0	75.0

* Data not presently available.

GLOSSARY

ADDI	Additives
AFB	Air Force Base
Ag	Silver
Al	Aluminum
APPL	Application
APS	Aft propulsion system
APU	Auxiliary power unit
ARCS	Aft reaction control subsystem
AUX	Auxiliary
BGE	Butyl glycidyl ether
C	Corrosive
CAT	Category
CC	Cubic centimeters
CF	Cubic feet
CFM	Cubic feet per minute
CLNP	Cleanup
CM	Centimeters
CMP	Corrugated metal pipe
CMPNTS	Components
CO_2	Carbon dioxide
COMP	Compatibility
Cr	Chromium
Cu	Copper
CY	Cubic yards
DOT	Department of Transportation
E	EP toxic
EEW&S	Emergency eyewash and shower
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ET	External tank
F	Flammable
FRCS	Forward reaction control system
Ft^2	Square feet

GLOSSARY (continued)

Ft^3	Cubic feet
FWD	Forward
Gal	Gallons
GH_2	Gaseous hydrogen
GHe	Gaseous helium
GN_2	Gaseous nitrogen
GO_2	Gaseous oxygen
GPM	Gallons per minute
H	EPA acutely hazardous
H_2O	Water
H_2O_2	Peroxide
Ha	Hectares
He	Helium
HP	Horsepower
HYD	Hydrazine
Hz	Hertz
i	Ignitable
I	Irritant
IPA	Isopropyl alcohol
ISP	Instant set polymer
IW	Insulation wastewater (suprawater)
KSC	Kennedy Space Center
kV	Kilovolts
kVA	Kilovoltampere
kW	Kilowatt
L	Liters
LAPS	Left aft propulsion system
LBM	Liquid boost module
Lbs	Pounds
LH_2	Liquid hydrogen
LIQ	Liquid
LN_2	Liquid nitrogen
LO_2	Liquid oxygen

GLOSSARY (continued)

LP	Launch pad
M	Meter
M^2	Square meters
M^3	Cubic meters
MDA	Methylene dianiline
MDI	Diphenyl methane diisocyanate
MECl	Methylene chloride
MEK	Methyl ethyl ketone
Mg	Magnesium
MMH	Monomethylhydrazine
mPDA	meta-Phenylene diamine
MSA	Marshall Sprayable Ablative
MTA	Marshall Trowlable Ablative
N/A	Not applicable
N_2	Nitrogen
N_2H_4	Anhydrous hydrazine
N_2O_4	Nitrogen tetroxide
NaOH	Sodium hydroxide
ND	No data
Neg	Negligible
NH_3	Ammonia
NVAFB	North Vandenberg Air Force Base
O&M	Operation and Maintenance
O_2	Oxygen
OPNS	Operations
ORB	Orbiter
ORD	Ordnance
OXID	Oxidizer
P	Pressure generating
Pb	Lead
PBK	Payload bay kit
PCB	Polychlorinated biphenyl
PCR	Payload changeout room

GLOSSARY (continued)

PERC	Perchloroethylene
PH	Port Hueneme
POTW	Publicly owned treatment works
PPM	Parts per million
PPR	Payload preparation room
PRG	Purge
PROT	Protective or protection
PSI	Pounds per square inch
PVC	Polyvinylchloride
QW	Quench water
R	Reactive
RAPS	Right aft propulsion system
RCRA	Resource Conservation and Recovery Act
RSV	Remote service vehicle
RTN	Routine
RV	Retrieval vessel
S	Strong sensitizer
S&A	Safe and arm
SCAPE	Self-contained atmospheric protective ensemble
SEG	Segment
SF	Square feet
SKT	Skirt
SOFI	Spray-on foam insulation
SOL	Solid
SPL	Spill(s)
SRB	Solid rocket booster
SRM	Solid rocket motor
SS	Station set
SSS	Station set specification
STA	Station
STS	Space transportation system
SVAFB	South Vandenberg Air Force Base
T	Toxic

GLOSSARY (continued)

TCE	1,1,1-trichloroethane
TP	Thrust post
TPH	Tons per hour
TPS	Thermal Protection System
TRT	Treatment
TVC	Thrust vector control
UDMH	Unsymmetrical dimethylhydrazine
VAFB	Vandenberg Air Force Base
Zn	Zinc

CATEGORY CODES

AL	Alkaline cleaning solutions
AW	Adhesive wastes, nonaqueous
BA	Batteries
BW	Bilge wastes
CA	Contaminated air filters
CB	Catalytic bed wash water
CC	Contaminated clothing
CN	Containers
CR	Contaminated rags
CS	Contaminated seawater
CW	Forward skirt cleaning wastes
EW	EEW&S wastewater
FO	Fuel, oil and grease spills and wastes
FS	Fuel spill cleanup
HF	Hydraulic fluids
HS	Hydrazine scrubber effluent
HY	Hydrazine
IN	Insulation wastes, solid
IW	Insulation wastewater (suprawater)
MH	Monomethylhydrazine
NH	Ammonia (NH_3), or water with ammonia
NO	Nitrogen tetroxide (N_2O_4)
OR	Ordnance
OS	Oxidizer spill cleanup
PA	Paint wastes, nonaqueous
PR	Preservative wastes, nonaqueous

CATEGORY CODES (continued)

PS	Propellants, solid
PW	Painting wastewater
QW	Quench water
SB	SRB wash water
SI	SRB initial rinse
SO	Solvent wastes, nonaqueous
SR	Solvent reducer wastes
SW	Solvent wastewater
WP	Worn-out parts
WS	Wastewater treatment sludges